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Q4 2022

Financial information

Financial Information

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Key Figures

(\$ in millions, unless otherwise indicated)	Q4 2022	Q4 2021	CHANGE	
			US\$	Comparable ⁽¹⁾
Orders	7,620	8,257	-8%	2%
Order backlog (end December)	19,867	16,607	20%	29%
Revenues	7,824	7,567	3%	16%
Gross Profit	2,658	2,397	11%	
as % of revenues	34.0%	31.7%	+2.3 pts	
Income from operations	1,185	2,975	-60%	
Operational EBITA ⁽¹⁾	1,146	988	16%	28% ⁽²⁾
as % of operational revenues ⁽¹⁾	14.8%	13.1%	+1.7 pts	
Income from continuing operations, net of tax	1,168	2,703	-57%	
Net income attributable to ABB	1,132	2,640	-57%	
Basic earnings per share (\$)	0.61	1.34	-55% ⁽³⁾	
Cash flow from operating activities ⁽⁴⁾	687	1,020	-33%	
Cash flow from operating activities in continuing operations	720	1,033	-30%	

(\$ in millions, unless otherwise indicated)	FY 2022	FY 2021	CHANGE	
			US\$	Comparable ⁽¹⁾
Orders	33,988	31,868	7%	16%
Revenues	29,446	28,945	2%	12%
Gross Profit	9,710	9,467	3%	
as % of revenues	33.0%	32.7%	+0.3 pts	
Income from operations	3,337	5,718	-42%	
Operational EBITA ⁽¹⁾	4,510	4,122	9%	18% ⁽²⁾
as % of operational revenues ⁽¹⁾	15.3%	14.2%	+1.1 pts	
Income from continuing operations, net of tax	2,637	4,730	-44%	
Net income attributable to ABB	2,475	4,546	-46%	
Basic earnings per share (\$)	1.30	2.27	-43% ⁽³⁾	
Cash flow from operating activities ⁽⁴⁾	1,287	3,330	-61%	
Cash flow from operating activities in continuing operations	1,334	3,338	-60%	

(1) For a reconciliation of non-GAAP measures see "Supplemental Reconciliations and Definitions" on page 35.

(2) Constant currency (not adjusted for portfolio changes).

(3) EPS growth rates are computed using unrounded amounts.

(4) Cash flow from operating activities includes both continuing and discontinued operations.

(\$ in millions, unless otherwise indicated)	Q4 2022	Q4 2021	CHANGE			
			US\$	Local	Comparable	
Orders	ABB Group	7,620	8,257	-8%	0%	2%
	Electrification	3,565	3,638	-2%	6%	6%
	Motion	1,649	1,843	-11%	-3%	0%
	Process Automation	1,746	1,898	-8%	0%	11%
	Robotics & Discrete Automation	798	1,100	-27%	-19%	-19%
	<i>Corporate and Other</i> <i>(incl. intersegment eliminations)</i>	(138)	(222)			
Order backlog (end December)	ABB Group	19,867	16,607	20%	26%	29%
	Electrification	6,933	5,458	27%	33%	33%
	Motion	4,726	3,749	26%	33%	34%
	Process Automation	6,229	6,079	2%	8%	16%
	Robotics & Discrete Automation	2,679	1,919	40%	49%	48%
	<i>Corporate and Other</i> <i>(incl. intersegment eliminations)</i>	(700)	(598)			
Revenues	ABB Group	7,824	7,567	3%	13%	16%
	Electrification	3,663	3,445	6%	16%	16%
	Motion	1,845	1,735	6%	17%	20%
	Process Automation	1,551	1,805	-14%	-6%	6%
	Robotics & Discrete Automation	891	799	12%	23%	23%
	<i>Corporate and Other</i> <i>(incl. intersegment eliminations)</i>	(126)	(217)			
Income from operations	ABB Group	1,185	2,975			
	Electrification	557	418			
	Motion	316	2,464			
	Process Automation	183	193			
	Robotics & Discrete Automation	101	45			
	<i>Corporate and Other</i> <i>(incl. intersegment eliminations)</i>	28	(145)			
Income from operations %	ABB Group	15.1%	39.3%			
	Electrification	15.2%	12.1%			
	Motion	17.1%	142.0%			
	Process Automation	11.8%	10.7%			
	Robotics & Discrete Automation	11.3%	5.6%			
Operational EBITA	ABB Group	1,146	988	16%	28%	
	Electrification	572	507	13%	26%	
	Motion	318	278	14%	26%	
	Process Automation	203	247	-18%	-8%	
	Robotics & Discrete Automation	125	64	95%	117%	
	<i>Corporate and Other</i> <i>(incl. intersegment eliminations)</i>	(72)	(108)			
Operational EBITA %	ABB Group	14.8%	13.1%			
	Electrification	15.7%	14.8%			
	Motion	17.4%	16.1%			
	Process Automation	13.2%	13.7%			
	Robotics & Discrete Automation	14.0%	8.1%			
Cash flow from operating activities	ABB Group	687	1,020			
	Electrification	804	715			
	Motion	346	416			
	Process Automation	205	370			
	Robotics & Discrete Automation	105	129			
	<i>Corporate and Other</i> <i>(incl. intersegment eliminations)</i>	(740)	(597)			
	<i>Discontinued operations</i>	(33)	(13)			

(\$ in millions, unless otherwise indicated)	FY 2022	FY 2021	CHANGE			
			US\$	Local	Comparable	
Orders	ABB Group	33,988	31,868	7%	13%	16%
	Electrification	15,901	14,381	11%	17%	17%
	Motion	7,896	7,616	4%	11%	20%
	Process Automation	6,825	6,779	1%	8%	11%
	Robotics & Discrete Automation	4,116	3,844	7%	16%	15%
	<i>Corporate and Other (incl. intersegment eliminations)</i>	(750)	(752)			
Order backlog (end December)	ABB Group	19,867	16,607	20%	26%	29%
	Electrification	6,933	5,458	27%	33%	33%
	Motion	4,726	3,749	26%	33%	34%
	Process Automation	6,229	6,079	2%	8%	16%
	Robotics & Discrete Automation	2,679	1,919	40%	49%	48%
	<i>Corporate and Other (incl. intersegment eliminations)</i>	(700)	(598)			
Revenues	ABB Group	29,446	28,945	2%	9%	12%
	Electrification	14,105	13,187	7%	14%	14%
	Motion	6,745	6,925	-3%	5%	14%
	Process Automation	6,044	6,259	-3%	4%	7%
	Robotics & Discrete Automation	3,181	3,297	-4%	5%	4%
	<i>Corporate and Other (incl. intersegment eliminations)</i>	(629)	(723)			
Income from operations	ABB Group	3,337	5,718			
	Electrification	2,159	1,841			
	Motion	1,092	3,276			
	Process Automation	663	713			
	Robotics & Discrete Automation	247	269			
	<i>Corporate and Other (incl. intersegment eliminations)</i>	(824)	(381)			
Income from operations %	ABB Group	11.3%	19.8%			
	Electrification	15.3%	14.0%			
	Motion	16.2%	47.3%			
	Process Automation	11.0%	11.4%			
	Robotics & Discrete Automation	7.8%	8.2%			
Operational EBITA	ABB Group	4,510	4,122	9%	18%	
	Electrification	2,328	2,121	10%	20%	
	Motion	1,163	1,183	-2%	6%	
	Process Automation	848	801	6%	15%	
	Robotics & Discrete Automation	340	355	-4%	8%	
	<i>Corporate and Other (incl. intersegment eliminations)</i>	(169)	(338)			
Operational EBITA %	ABB Group	15.3%	14.2%			
	Electrification	16.5%	16.1%			
	Motion	17.3%	17.1%			
	Process Automation	14.0%	12.8%			
	Robotics & Discrete Automation	10.7%	10.8%			
Cash flow from operating activities	ABB Group	1,287	3,330			
	Electrification	1,887	2,181			
	Motion	853	1,362			
	Process Automation	675	1,062			
	Robotics & Discrete Automation	214	374			
	<i>Corporate and Other (incl. intersegment eliminations)</i>	(2,295)	(1,641)			
	<i>Discontinued operations</i>	(47)	(8)			

Operational EBITA

(\$ in millions, unless otherwise indicated)	ABB		Electrification		Motion		Process Automation		Robotics & Discrete Automation	
	Q4 22	Q4 21	Q4 22	Q4 21	Q4 22	Q4 21	Q4 22	Q4 21	Q4 22	Q4 21
	Revenues	7,824	7,567	3,663	3,445	1,845	1,735	1,551	1,805	891
Foreign exchange/commodity timing differences in total revenues	(62)	(44)	(29)	(22)	(22)	(10)	(12)	(5)	1	(5)
Operational revenues	7,762	7,523	3,634	3,423	1,823	1,725	1,539	1,800	892	794
Income from operations	1,185	2,975	557	418	316	2,464	183	193	101	45
Acquisition-related amortization	55	59	27	29	8	7	1	2	19	21
Restructuring, related and implementation costs ⁽¹⁾	47	79	10	34	5	4	23	33	2	1
Changes in obligations related to divested businesses	(71)	(7)	1	-	-	-	-	-	-	-
Changes in pre-acquisition estimates	10	-	9	-	-	-	-	-	1	-
Gains and losses from sale of businesses	3	(2,184)	-	9	3	(2,195)	-	-	-	-
Acquisition- and divestment-related expenses and integration costs	24	58	8	34	3	7	12	18	2	-
Other income/expense relating to the Power Grids joint venture	(10)	-	-	-	-	-	-	-	-	-
Certain other non-operational items	(28)	40	-	8	-	-	-	(2)	(9)	-
Foreign exchange/commodity timing differences in income from operations	(69)	(32)	(40)	(25)	(17)	(9)	(16)	3	9	(3)
Operational EBITA	1,146	988	572	507	318	278	203	247	125	64
Operational EBITA margin (%)	14.8%	13.1%	15.7%	14.8%	17.4%	16.1%	13.2%	13.7%	14.0%	8.1%

(\$ in millions, unless otherwise indicated)	ABB		Electrification		Motion		Process Automation		Robotics & Discrete Automation	
	FY 22	FY 21	FY 22	FY 21	FY 22	FY 21	FY 22	FY 21	FY 22	FY 21
	Revenues	29,446	28,945	14,105	13,187	6,745	6,925	6,044	6,259	3,181
Foreign exchange/commodity timing differences in total revenues	28	(1)	(14)	1	(14)	2	33	5	6	(7)
Operational revenues	29,474	28,944	14,091	13,188	6,731	6,927	6,077	6,264	3,187	3,290
Income from operations	3,337	5,718	2,159	1,841	1,092	3,276	663	713	247	269
Acquisition-related amortization	229	250	116	117	31	43	4	5	78	83
Restructuring, related and implementation costs ⁽¹⁾	347	160	28	66	16	22	29	48	11	7
Changes in obligations related to divested businesses	(88)	9	1	-	-	-	-	-	-	-
Changes in pre-acquisition estimates	10	(6)	11	(6)	-	-	-	-	(1)	-
Gains and losses from sale of businesses	7	(2,193)	(1)	13	8	(2,196)	-	(13)	-	-
Acquisition- and divestment-related expenses and integration costs	195	132	40	70	15	26	134	35	6	1
Other income/expense relating to the Power Grids joint venture	57	34	-	-	-	-	-	-	-	-
Certain other non-operational items	385	(18)	(24)	(5)	-	1	-	1	(7)	-
Foreign exchange/commodity timing differences in income from operations	31	36	(2)	25	1	11	18	12	6	(5)
Operational EBITA	4,510	4,122	2,328	2,121	1,163	1,183	848	801	340	355
Operational EBITA margin (%)	15.3%	14.2%	16.5%	16.1%	17.3%	17.1%	14.0%	12.8%	10.7%	10.8%

(1) Includes impairment of certain assets.

Depreciation and Amortization

(\$ in millions)	ABB		Electrification		Motion		Process Automation		Robotics & Discrete Automation	
	Q4 22	Q4 21	Q4 22	Q4 21	Q4 22	Q4 21	Q4 22	Q4 21	Q4 22	Q4 21
	Depreciation	130	141	67	74	27	29	13	13	16
Amortization	69	75	34	36	10	9	3	2	19	21
including total acquisition-related amortization of:	55	59	27	29	8	7	1	2	19	21

(\$ in millions)	ABB		Electrification		Motion		Process Automation		Robotics & Discrete Automation	
	FY 22	FY 21	FY 22	FY 21	FY 22	FY 21	FY 22	FY 21	FY 22	FY 21
	Depreciation	531	575	265	276	105	123	64	72	62
Amortization	283	318	141	149	36	49	11	11	79	85
including total acquisition-related amortization of:	229	250	116	117	31	43	4	5	78	83

Orders received and revenues by region

(\$ in millions, unless otherwise indicated)	Orders received		CHANGE			Revenues		CHANGE		
	Q4 22	Q4 21	US\$	Local	Com-parable	Q4 22	Q4 21	US\$	Local	Com-parable
	Europe	2,604	3,138	-17%	-5%	-5%	2,766	2,756	0%	15%
The Americas	2,898	2,640	10%	11%	15%	2,554	2,198	16%	17%	22%
of which United States	2,167	1,995	9%	9%	13%	1,898	1,579	20%	20%	26%
Asia, Middle East and Africa	2,118	2,479	-15%	-5%	-2%	2,504	2,613	-4%	7%	10%
of which China	976	1,255	-22%	-13%	-12%	1,133	1,234	-8%	2%	5%
ABB Group	7,620	8,257	-8%	0%	2%	7,824	7,567	3%	13%	16%

(\$ in millions, unless otherwise indicated)	Orders received		CHANGE			Revenues		CHANGE		
	FY 22	FY 21	US\$	Local	Com-parable	FY 22	FY 21	US\$	Local	Com-parable
	Europe	11,778	11,857	-1%	13%	13%	10,286	10,529	-2%	12%
The Americas	11,825	9,940	19%	20%	28%	9,572	8,686	10%	11%	19%
of which United States	8,920	7,453	20%	20%	29%	7,021	6,397	10%	10%	19%
Asia, Middle East and Africa	10,385	10,071	3%	9%	10%	9,588	9,730	-1%	5%	6%
of which China	5,087	5,036	1%	5%	5%	4,696	4,932	-5%	0%	0%
ABB Group	33,988	31,868	7%	13%	16%	29,446	28,945	2%	9%	12%

Consolidated Financial Information

ABB Ltd Consolidated Income Statements (unaudited)

(\$ in millions, except per share data in \$)	Year ended		Three months ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Sales of products	24,471	23,745	6,525	6,101
Sales of services and other	4,975	5,200	1,299	1,466
Total revenues	29,446	28,945	7,824	7,567
Cost of sales of products	(16,804)	(16,364)	(4,365)	(4,275)
Cost of services and other	(2,932)	(3,114)	(801)	(895)
Total cost of sales	(19,736)	(19,478)	(5,166)	(5,170)
Gross profit	9,710	9,467	2,658	2,397
Selling, general and administrative expenses	(5,132)	(5,162)	(1,299)	(1,354)
Non-order related research and development expenses	(1,166)	(1,219)	(322)	(322)
Other income (expense), net	(75)	2,632	148	2,254
Income from operations	3,337	5,718	1,185	2,975
Interest and dividend income	72	51	22	14
Interest and other finance expense	(130)	(148)	(23)	(40)
Non-operational pension (cost) credit	115	166	13	36
Income from continuing operations before taxes	3,394	5,787	1,197	2,985
Income tax expense	(757)	(1,057)	(29)	(282)
Income from continuing operations, net of tax	2,637	4,730	1,168	2,703
Loss from discontinued operations, net of tax	(43)	(80)	(7)	(35)
Net income	2,594	4,650	1,161	2,668
Net income attributable to noncontrolling interests and redeemable noncontrolling interests	(119)	(104)	(29)	(28)
Net income attributable to ABB	2,475	4,546	1,132	2,640
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	2,517	4,625	1,138	2,674
Loss from discontinued operations, net of tax	(42)	(79)	(6)	(34)
Net income	2,475	4,546	1,132	2,640
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	1.33	2.31	0.61	1.35
Loss from discontinued operations, net of tax	(0.02)	(0.04)	0.00	(0.02)
Net income	1.30	2.27	0.61	1.34
Diluted earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	1.32	2.29	0.60	1.34
Loss from discontinued operations, net of tax	(0.02)	(0.04)	0.00	(0.02)
Net income	1.30	2.25	0.60	1.33
Weighted-average number of shares outstanding (in millions) used to compute:				
Basic earnings per share attributable to ABB shareholders	1,899	2,001	1,870	1,974
Diluted earnings per share attributable to ABB shareholders	1,910	2,019	1,881	1,991

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

ABB Ltd Condensed Consolidated Statements of Comprehensive Income (unaudited)

(\$ in millions)	Year ended		Three months ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Total comprehensive income, net of tax	2,189	4,567	1,414	2,845
Total comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interests, net of tax	(87)	(108)	(29)	(27)
Total comprehensive income attributable to ABB shareholders, net of tax	2,102	4,459	1,385	2,818

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Balance Sheets (unaudited)

(\$ in millions)	Dec. 31, 2022	Dec. 31, 2021
Cash and equivalents	4,156	4,159
Restricted cash	18	30
Marketable securities and short-term investments	725	1,170
Receivables, net	6,858	6,551
Contract assets	954	990
Inventories, net	6,028	4,880
Prepaid expenses	230	206
Other current assets	505	573
Current assets held for sale and in discontinued operations	96	136
Total current assets	19,570	18,695
Restricted cash, non-current	–	300
Property, plant and equipment, net	3,911	4,045
Operating lease right-of-use assets	841	895
Investments in equity-accounted companies	130	1,670
Prepaid pension and other employee benefits	916	892
Intangible assets, net	1,406	1,561
Goodwill	10,511	10,482
Deferred taxes	1,396	1,177
Other non-current assets	467	543
Total assets	39,148	40,260
Accounts payable, trade	4,904	4,921
Contract liabilities	2,216	1,894
Short-term debt and current maturities of long-term debt	2,535	1,384
Current operating leases	220	230
Provisions for warranties	1,028	1,005
Other provisions	1,171	1,386
Other current liabilities	4,323	4,367
Current liabilities held for sale and in discontinued operations	132	381
Total current liabilities	16,529	15,568
Long-term debt	5,143	4,177
Non-current operating leases	651	689
Pension and other employee benefits	719	1,025
Deferred taxes	729	685
Other non-current liabilities	2,085	2,116
Non-current liabilities held for sale and in discontinued operations	20	43
Total liabilities	25,876	24,303
<i>Commitments and contingencies</i>		
Redeemable noncontrolling interest	85	–
Stockholders' equity:		
Common stock, CHF 0.12 par value (1,965 million and 2,053 million shares issued at December 31, 2022 and 2021, respectively)	171	178
Additional paid-in capital	141	22
Retained earnings	20,082	22,477
Accumulated other comprehensive loss	(4,556)	(4,088)
Treasury stock, at cost (100 million and 95 million shares at December 31, 2022 and 2021, respectively)	(3,061)	(3,010)
Total ABB stockholders' equity	12,777	15,579
Noncontrolling interests	410	378
Total stockholders' equity	13,187	15,957
Total liabilities and stockholders' equity	39,148	40,260

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Statements of Cash Flows (unaudited)

(\$ in millions)	Year ended		Three months ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Operating activities:				
Net income	2,594	4,650	1,161	2,668
Loss from discontinued operations, net of tax	43	80	7	35
Adjustments to reconcile net income (loss) to net cash provided by operating activities:				
Depreciation and amortization	814	893	199	216
Changes in fair values of investments	(33)	(123)	6	(9)
Pension and other employee benefits	(125)	(216)	(18)	(57)
Deferred taxes	(348)	(289)	(165)	(371)
Loss from equity-accounted companies	102	100	2	17
Net loss (gain) from derivatives and foreign exchange	(23)	49	(67)	(50)
Net loss (gain) from sale of property, plant and equipment	(84)	(38)	(20)	(16)
Net loss (gain) from sale of businesses	7	(2,193)	3	(2,184)
Other	70	117	9	47
Changes in operating assets and liabilities:				
Trade receivables, net	(831)	(142)	(174)	40
Contract assets and liabilities	416	29	63	102
Inventories, net	(1,599)	(771)	68	(79)
Accounts payable, trade	395	659	5	298
Accrued liabilities	136	454	84	118
Provisions, net	(70)	(48)	(382)	31
Income taxes payable and receivable	(94)	117	(113)	209
Other assets and liabilities, net	(36)	10	52	18
Net cash provided by operating activities – continuing operations	1,334	3,338	720	1,033
Net cash used in operating activities – discontinued operations	(47)	(8)	(33)	(13)
Net cash provided by operating activities	1,287	3,330	687	1,020
Investing activities:				
Purchases of investments	(321)	(1,528)	(50)	(1,114)
Purchases of property, plant and equipment and intangible assets	(762)	(820)	(259)	(361)
Acquisition of businesses (net of cash acquired) and increases in cost- and equity-accounted companies	(288)	(241)	(62)	(14)
Proceeds from sales of investments	697	2,272	43	633
Proceeds from maturity of investments	73	81	73	1
Proceeds from sales of property, plant and equipment	127	93	42	57
Proceeds from sales of businesses (net of transaction costs and cash disposed) and cost- and equity-accounted companies	1,541	2,958	1,549	2,865
Net cash from settlement of foreign currency derivatives	(166)	(121)	(12)	(46)
Changes in loans receivable, net	320	(19)	309	6
Other investing activities	(14)	(4)	(4)	(4)
Net cash provided by investing activities – continuing operations	1,207	2,671	1,629	2,023
Net cash used in investing activities – discontinued operations	(226)	(364)	(135)	(281)
Net cash provided by investing activities	981	2,307	1,494	1,742
Financing activities:				
Net changes in debt with original maturities of 90 days or less	1,366	(83)	(109)	(296)
Increase in debt	3,849	1,400	295	22
Repayment of debt	(2,703)	(1,538)	(678)	(775)
Delivery of shares	394	826	5	40
Purchase of treasury stock	(3,553)	(3,708)	(302)	(1,267)
Dividends paid	(1,698)	(1,726)	–	–
Cash associated with the spin-off of the Turbocharging Division	(172)	–	(172)	–
Dividends paid to noncontrolling shareholders	(99)	(98)	(16)	(7)
Proceeds from issuance of subsidiary shares	216	–	216	–
Other financing activities	6	(41)	64	(24)
Net cash used in financing activities – continuing operations	(2,394)	(4,968)	(697)	(2,307)
Net cash provided by financing activities – discontinued operations	–	–	–	–
Net cash used in financing activities	(2,394)	(4,968)	(697)	(2,307)
Effects of exchange rate changes on cash and equivalents and restricted cash	(189)	(81)	2	(6)
Net change in cash and equivalents and restricted cash	(315)	588	1,486	449
Cash and equivalents and restricted cash, beginning of period	4,489	3,901	2,688	4,040
Cash and equivalents and restricted cash, end of period	4,174	4,489	4,174	4,489
Supplementary disclosure of cash flow information:				
Interest paid	90	132	43	57
Income taxes paid	1,188	1,292	281	499

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Statements of Changes in Stockholders' Equity (unaudited)

(\$ in millions)	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Treasury stock	Total ABB stockholders' equity	Non-controlling interests	Total stockholders' equity
Balance at January 1, 2021	188	83	22,946	(4,002)	(3,530)	15,685	314	15,999
Net income			4,546			4,546	104	4,650
Foreign currency translation adjustments, net of tax of \$0				(534)		(534)	4	(530)
Effect of change in fair value of available-for-sale securities, net of tax of \$(4)				(15)		(15)		(15)
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of \$22				467		467		467
Change in derivative instruments and hedges, net of tax of \$(1)				(5)		(5)		(5)
Changes in noncontrolling interests		(37)	(20)			(57)	55	(2)
Dividends to noncontrolling shareholders							(98)	(98)
Dividends to shareholders			(1,730)			(1,730)		(1,730)
Cancellation of treasury shares	(10)	(17)	(3,130)		3,157			
Share-based payment arrangements		60				60		60
Purchase of treasury stock					(3,682)	(3,682)		(3,682)
Delivery of shares		(84)	(136)		1,046	826		826
Other		16				16		16
Balance at December 31, 2021	178	22	22,477	(4,088)	(3,010)	15,579	378	15,957
Balance at January 1, 2022	178	22	22,477	(4,088)	(3,010)	15,579	378	15,957
Net income ⁽¹⁾			2,475			2,475	124	2,599
Foreign currency translation adjustments, net of tax of \$0				(608)		(608)	(31)	(639)
Effect of change in fair value of available-for-sale securities, net of tax of \$(5)				(21)		(21)		(21)
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of \$86				256		256	(1)	255
Change in derivative instruments and hedges, net of tax of \$2								
Issuance of subsidiary shares		120				120	86	206
Other changes in noncontrolling interests		10				10	(34)	(24)
Dividends to noncontrolling shareholders							(100)	(100)
Dividends to shareholders			(1,700)			(1,700)		(1,700)
Spin-off of the Turbocharging Division			(177)	(95)		(272)	(12)	(284)
Cancellation of treasury shares	(8)	(4)	(2,864)		2,876			
Share-based payment arrangements		42				42		42
Purchase of treasury stock					(3,502)	(3,502)		(3,502)
Delivery of shares		(51)	(130)		575	394		394
Other		2				2		2
Balance at December 31, 2022	171	141	20,082	(4,556)	(3,061)	12,777	410	13,187

(1) Amounts attributable to noncontrolling interests for the year ended December 31, 2022, exclude net losses of \$5 million related to redeemable noncontrolling interests, which are reported in the mezzanine equity section on the Consolidated Balance Sheets. See Note 4 for details.

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

Notes to the Consolidated Financial Information (unaudited)

Note 1

The Company and basis of presentation

ABB Ltd and its subsidiaries (collectively, the Company) together form a technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. The Company's solutions connect engineering know-how and software to optimize how things are manufactured, moved, powered and operated.

The Company's Consolidated Financial Information is prepared in accordance with United States of America generally accepted accounting principles (U.S. GAAP) for interim financial reporting. As such, the Consolidated Financial Information does not include all the information and notes required under U.S. GAAP for annual consolidated financial statements. Therefore, such financial information should be read in conjunction with the audited consolidated financial statements in the Company's Annual Report for the year ended December 31, 2021.

The preparation of financial information in conformity with U.S. GAAP requires management to make assumptions and estimates that directly affect the amounts reported in the Consolidated Financial Information. These accounting assumptions and estimates include:

- estimates to determine valuation allowances for deferred tax assets and amounts recorded for unrecognized tax benefits,
- estimates related to credit losses expected to occur over the remaining life of financial assets such as trade and other receivables, loans and other instruments,
- estimates used to record expected costs for employee severance in connection with restructuring programs,
- estimates of loss contingencies associated with litigation or threatened litigation and other claims and inquiries, environmental damages, product warranties, self-insurance reserves, regulatory and other proceedings,
- assumptions and projections, principally related to future material, labor and project-related overhead costs, used in determining the percentage-of-completion on projects where revenue is recognized over time, as well as the amount of variable consideration the Company expects to be entitled to,
- assumptions used in the calculation of pension and postretirement benefits and the fair value of pension plan assets,
- assumptions used in determining inventory obsolescence and net realizable value,
- growth rates, discount rates and other assumptions used to determine impairment of long-lived assets and in testing goodwill for impairment,
- estimates and assumptions used in determining the fair values of assets and liabilities assumed in business combinations, and
- estimates and assumptions used in determining the initial fair value of retained noncontrolling interests and certain obligations in connection with divestments.

The actual results and outcomes may differ from the Company's estimates and assumptions.

A portion of the Company's activities (primarily long-term construction activities) has an operating cycle that exceeds one year. For classification of current assets and liabilities related to such activities, the Company elected to use the duration of the individual contracts as its operating cycle. Accordingly, there are accounts receivable, contract assets, inventories and provisions related to these contracts which will not be realized within one year that have been classified as current.

Basis of presentation

In the opinion of management, the unaudited Consolidated Financial Information contains all necessary adjustments to present fairly the financial position, results of operations and cash flows for the reported periods. Management considers all such adjustments to be of a normal recurring nature. The Consolidated Financial Information is presented in United States dollars (\$) unless otherwise stated. Due to rounding, numbers presented in the Consolidated Financial Information may not add to the totals provided.

Note 2

Recent accounting pronouncements

Applicable for current periods

Business Combinations — Accounting for contract assets and contract liabilities from contracts with customers

In January 2022, the Company early adopted a new accounting standard update, which provides guidance on the accounting for revenue contracts acquired in a business combination. The update requires contract assets and liabilities acquired in a business combination to be recognized and measured at the date of acquisition in accordance with the principles for recognizing revenues from contracts with customers. The Company has applied this accounting standard update prospectively starting with acquisitions closing after January 1, 2022.

Disclosures about government assistance

In January 2022, the Company adopted a new accounting standard update, which requires entities to disclose certain types of government assistance. Under the update, the Company is required to annually disclose (i) the type of the assistance received, including any significant terms and conditions, (ii) its related accounting policy, and (iii) the effect such transactions have on its financial statements. The Company has applied this accounting standard update prospectively. This update does not have a significant impact on the Company's consolidated financial statements.

Applicable for future periods

Facilitation of the effects of reference rate reform on financial reporting

In March 2020, an accounting standard update was issued which provides temporary optional expedients and exceptions to the current guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank offered rates to alternative reference rates. This update, along with clarifications outlined in subsequent updates issued during January 2021 and December 2022, can be adopted and applied no later than December 31, 2024, with early adoption permitted. The Company expects to adopt this update during the second half of 2023 and does not expect this update to have a significant impact on its consolidated financial statements.

Disclosure about supplier finance program obligations

In September 2022, an accounting standard update was issued which requires entities to disclose information related to supplier finance programs. Under the update, the Company is required to annually disclose (i) the key terms of the program, (ii) the amount of the supplier finance obligations outstanding and where those obligations are presented in the balance sheet at the reporting date, and (iii) a rollforward of the supplier finance obligation program within the reporting period. This update is effective for the Company retrospectively for all in-scope transactions for annual periods beginning January 1, 2023, with the exception of the rollforward disclosures, which are effective prospectively for annual periods beginning January 1, 2024, with early adoption permitted. The Company does not expect this update to have a significant impact on its consolidated financial statements. The total outstanding supplier finance obligation included in "Accounts payable, trade" in the Consolidated Balance Sheet at December 31, 2022, amounted to \$477 million.

Note 3

Discontinued operations and assets held for sale

Divestment of the Power Grids business

On July 1, 2020, the Company completed the sale of 80.1 percent of its Power Grids business to Hitachi Ltd (Hitachi). The transaction was executed through the sale of 80.1 percent of the shares of Hitachi Energy Ltd, formerly Hitachi ABB Power Grids Ltd ("Hitachi Energy"). Cash consideration received at the closing date was \$9,241 million net of cash disposed. Further, for accounting purposes, the 19.9 percent ownership interest retained by the Company was deemed to have been both divested and reacquired at its fair value on July 1, 2020. The Company also obtained a put option, exercisable with three-months' notice commencing in April 2023. The combined fair value of the retained investment and the related put option amounted to \$1,779 million and was recorded as both an equity-method investment and as part of the proceeds for the sale of the entire Power Grids business (see Note 4).

In connection with the divestment, the Company recorded liabilities in discontinued operations for estimated future costs and other cash payments of \$487 million for various contractual items relating to the sale of the business, including required future cost reimbursements payable to Hitachi Energy, costs to be incurred by the Company for the direct benefit of Hitachi Energy and an amount due to Hitachi Ltd in connection with the expected purchase price finalization of the closing debt and working capital balances. In October 2021, the Company and Hitachi concluded an agreement to settle the various amounts owing by the Company. The net difference between the agreed amounts and the amounts initially estimated by the Company was recorded in 2021 in discontinued operations as an adjustment to "Change to net gain recognized on sale of the Power Grids business" in the table below. During the year and three months ended December 31, 2022, total cash payments of \$102 million (excluding payments related to the guarantees, see Note 10), and \$11 million, respectively, were made in connection with these liabilities. During the year and three months ended December 31, 2021, total cash payments (including the amounts paid under the settlement agreement) of \$364 million and \$281 million, respectively, were made in connection with these liabilities. At December 31, 2022, the remaining amount recorded was \$53 million.

Upon closing of the sale, the Company entered into various transition services agreements (TSAs). Pursuant to these TSAs, the Company and Hitachi Energy provide to each other, on an interim, transitional basis, various services. The services provided by the Company primarily include finance, information technology, human resources and certain other administrative services. Under the current terms, the TSAs will continue for up to 3 years, and can only be extended on an exceptional basis for business-critical services for an additional period which is reasonably necessary to avoid a material adverse impact on the business. In the year and three months ended December 31, 2022, the Company has recognized within its continuing operations, general and administrative expenses incurred to perform the TSAs, offset by \$162 million and \$47 million, respectively, in TSA-related income for such services that is reported in Other income (expense), net. In the year and three months ended December 31, 2021, Other income (expense) included \$173 million and \$46 million, respectively, of TSA-related income for such services.

Discontinued operations

As a result of the sale of the Power Grids business, substantially all Power Grids-related assets and liabilities have been sold. As this divestment represented a strategic shift that would have a major effect on the Company's operations and financial results, the results of operations for this business have been presented as discontinued operations and the assets and liabilities are presented as held for sale and in discontinued operations for all periods presented. Certain of the business contracts in the Power Grids business continue to be executed by subsidiaries of the Company for the benefit/risk of Hitachi Energy. Assets and liabilities relating to, as well as the net financial results of, these contracts will continue to be included in discontinued operations until they have been completed or otherwise transferred to Hitachi Energy.

Amounts recorded in discontinued operations were as follows:

(\$ in millions)	Year ended		Three months ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Expenses	(38)	(18)	(13)	(5)
Change to net gain recognized on sale of the Power Grids business	(10)	(65)	1	(33)
Loss from operations	(48)	(83)	(12)	(38)
Net interest income and other finance expense	-	2	-	2
Loss from discontinued operations before taxes	(48)	(81)	(12)	(36)
Income tax	5	1	5	1
Loss from discontinued operations, net of tax	(43)	(80)	(7)	(35)

Of the total Loss from discontinued operations before taxes in the table above, \$(47) million and \$(80) million in the year ended December 31, 2022 and 2021, respectively, and \$(11) million and \$(35) million in the three months ended December 31, 2022 and 2021, respectively, are attributable to the Company, while the remainder is attributable to noncontrolling interests.

In addition, the Company also has retained obligations (primarily for environmental and taxes) related to other businesses disposed or otherwise exited that qualified as discontinued operations. Changes to these retained obligations are also included in Loss from discontinued operations, net of tax, above.

The major components of assets and liabilities held for sale and in discontinued operations in the Company's Consolidated Balance Sheets are summarized as follows:

(\$ in millions)	Dec. 31, 2022 ⁽¹⁾	Dec. 31, 2021 ⁽¹⁾
Receivables, net	92	131
Other current assets	4	5
Current assets held for sale and in discontinued operations	96	136
Accounts payable, trade	44	71
Other liabilities	88	310
Current liabilities held for sale and in discontinued operations	132	381
Other non-current liabilities	20	43
Non-current liabilities held for sale and in discontinued operations	20	43

(1) At December 31, 2022 and 2021, the balances reported as held for sale and in discontinued operations pertain to Power Grids activities and other obligations which will remain with the Company until such time as the obligation is settled or the activities are fully wound down.

Note 4

Acquisitions and equity-accounted companies

Acquisition of controlling interests

Acquisitions of controlling interests were as follows:

(\$ in millions, except number of acquired businesses)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Purchase price for acquisitions (net of cash acquired) ⁽¹⁾	195	212	46	(3)
Aggregate excess of purchase price over fair value of net assets acquired ⁽²⁾	229	161	24	2
Number of acquired businesses	5	2	2	-

(1) Excluding changes in cost- and equity-accounted companies.

(2) Recorded as goodwill.

In the table above, the "Purchase price for acquisitions" and "Aggregate excess of purchase price over fair value of net assets acquired" amounts for the year ended December 31, 2022, relate primarily to the acquisition of InCharge Energy, Inc. (In-Charge) and in the year ended December 31, 2021, relate primarily to the acquisition of ASTI Mobile Robotics Group (ASTI).

Acquisitions of controlling interests have been accounted for under the acquisition method and have been included in the Company's consolidated financial statements since the date of acquisition.

On January 26, 2022, the Company increased its ownership in In-Charge to a 60 percent controlling interest through a stock purchase agreement. In-Charge is headquartered in Santa Monica, USA, and is a provider of turn-key commercial electric vehicle charging hardware and software solutions. The resulting cash outflows for the Company amounted to \$134 million (net of cash acquired of \$4 million). The acquisition expands the market presence of the E-mobility Division of its Electrification operating segment, particularly in the North American market. In connection with the acquisition, the Company's pre-existing 13.2 percent ownership of In-Charge was revalued to fair value and a gain of \$32 million was recorded in "Other income (expense), net" in the year ended December 31, 2022. The Company entered into an agreement with the remaining noncontrolling shareholders allowing either party to put or call the remaining 40 percent of the shares until 2027. The amount for which either party can exercise their option is dependent on a formula based on revenues and thus, the amount is subject to change. As a result of this agreement, the noncontrolling interest is classified as Redeemable noncontrolling interest (i.e. mezzanine equity) in the Consolidated Balance Sheets and was initially recognized at fair value.

On August 2, 2021, the Company acquired the shares of ASTI. ASTI is headquartered in Burgos, Spain, and is a global autonomous mobile robot (AMR) manufacturer. The resulting cash outflows for the Company amounted to \$186 million (net of cash acquired). The acquisition expands the Company's robotics and automation offering in its Robotics & Discrete Automation operating segment.

While the Company uses its best estimates and assumptions as part of the purchase price allocation process to value assets acquired and liabilities assumed at the acquisition date, the purchase price allocation for acquisitions is preliminary for up to 12 months after the acquisition date and is subject to refinement as more detailed analyses are completed and additional information about the fair values of the assets and liabilities becomes available.

Business divestments and spin-offs

On September 7, 2022, the shareholders approved the spin-off of the Company's Turbocharging Division into an independent, publicly traded company, Accelleron Industries AG (Accelleron), which was completed through the distribution of common stock of Accelleron to the stockholders of ABB on October 3, 2022. As a result of the spin-off of this Division, the Company distributed net assets of \$272 million, net of amounts attributable to noncontrolling interests of \$12 million, which was reflected as a reduction in Retained earnings. In addition, total accumulated comprehensive income of \$95 million, including the cumulative translation adjustment, was reclassified to Retained earnings. Cash and cash equivalents distributed with Accelleron was \$172 million.

The results of operations of the Turbocharging Division, are included in the continuing operations of the Process Automation operating segment for all periods presented through to the spin-off date. In the year and three months ended December 31, 2022, "Income continuing operations before taxes", included income of \$134 million and \$1 million, respectively, from this Division. In the year and three months ended December 31, 2021, "Income continuing operations before taxes", included income of \$186 million and \$53 million, respectively, from this Division. In anticipation of the spin-off, the Company granted to a subsidiary of Accelleron access to funds in the form of a short-term intercompany loan. At the spin-off date, this loan, having a principal amount of 300 million Swiss francs (\$306 million at the date of spin-off), was due to ABB and subsequently collected in October 2022.

In the year and three months ended December 31, 2021, the Company received proceeds (net of transactions costs and cash disposed) of \$2,958 million and \$2,865 million, respectively, relating to divestments of consolidated businesses and recorded gains of \$2,193 million and \$2,184 million, respectively in "Other income (expense), net" on the sales of such businesses. These are primarily due to the divestment of the Company's Mechanical Power Transmission Division (Dodge) to RBC Bearings Inc. Certain amounts included in the net gain for the sale of the Dodge business are estimated or otherwise subject to change in value and, as a result, the Company may record additional adjustments to the gain in future periods which are not expected to have a material impact on the consolidated financial statements. In the year and three months ended December 31, 2021, "Income from continuing operations before taxes", included net income of \$115 million and \$9 million, respectively, from the Dodge business which, prior to its sale was part of the Company's Motion operating segment.

Investments in equity-accounted companies

In connection with the divestment of its Power Grids business to Hitachi in 2020 (see Note 3), the Company retained a 19.9 percent interest in the business. For accounting purposes the 19.9 percent interest was deemed to have been both divested and reacquired, with a fair value at the transaction date of \$1,661 million. The fair value was based on a discounted cash flow model considering the expected results of the future business operations of Hitachi Energy and using relevant market inputs including a risk-adjusted weighted-average cost of capital.

The Company also obtained an option, exercisable with three-months' notice commencing April 2023, granting it the right to require Hitachi to purchase this investment at fair value, subject to a minimum floor price equivalent to a 10 percent discount compared to the price paid for the initial 80.1 percent. This option was initially valued at \$118 million using a standard option pricing model with inputs considering the nature of the investment and the expected period until option exercise. As this option is not separable from the investment the value has been combined with the value of the underlying investment and is accounted for together. Hitachi also received a call option requiring the Company to sell the remaining 19.9 percent interest in Hitachi Energy at any time at a price consistent with what was paid by Hitachi to acquire the initial 80.1 percent or at fair value, if higher.

In September 2022, the Company and Hitachi agreed terms to sell the Company's remaining investment in Hitachi Energy to Hitachi and simultaneously settle certain outstanding contractual obligations relating to the initial sale of the Power Grids business, including certain indemnification guarantees (see Note 10). The sale of the remaining investment was completed in December 2022, resulting in net cash proceeds of \$1,552 million and a gain of \$43 million which was recorded in "Other income (expense), net".

In July 2020, the Company concluded that based on its continuing involvement with the Power Grids business, including the membership in its governing board of directors, it had significant influence over Hitachi Energy. As a result, the investment (including the value of the option) was accounted for using the equity method through the date of its sale in December 2022.

The carrying value of the Company's investments in equity-accounted companies and respective percentage of ownership is as follows:

(\$ in millions, except ownership share in %)	Ownership as of	Carrying value at	
	December 31, 2021	December 31, 2022	December 31, 2021
Hitachi Energy Ltd	19.9%	-	1,609
Others		130	61
Total		130	1,670

In the year and three months ended December 31, 2022 and 2021, the Company recorded its share of the earnings of investees accounted for under the equity method of accounting in Other income (expense), net, as follows:

(\$ in millions)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Income (loss) from equity-accounted companies, net of taxes	(22)	38	12	27
Basis difference amortization (net of deferred income tax benefit)	(80)	(138)	(14)	(44)
Loss from equity-accounted companies	(102)	(100)	(2)	(17)

Subsequent event

On January 19, 2023, the Company reached an agreement to sell its Power Conversion Division to AcBel Polytech Inc. for \$505 million in cash. The transaction is subject to regulatory approvals and is expected to be completed in the second half of 2023.

Note 5

Cash and equivalents, marketable securities and short-term investments

Cash and equivalents, marketable securities and short-term investments consisted of the following:

(\$ in millions)	December 31, 2022					Cash and equivalents and restricted cash	Marketable securities and short-term investments
	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value			
Changes in fair value recorded in net income							
Cash	1,715			1,715	1,715		
Time deposits	2,459			2,459	2,459		
Equity securities	345	10		355			355
	4,519	10		4,529	4,174		355
Changes in fair value recorded in other comprehensive income							
Debt securities available-for-sale:							
U.S. government obligations	269	1	(15)	255			255
Other government obligations	58			58			58
Corporate	64		(7)	57			57
	391	1	(22)	370			370
Total	4,910	11	(22)	4,899	4,174		725
Of which:							
Restricted cash, current					18		
(\$ in millions)	December 31, 2021					Cash and equivalents and restricted cash	Marketable securities and short-term investments
	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value			
Changes in fair value recorded in net income							
Cash	2,752			2,752	2,752		
Time deposits	2,037			2,037	1,737		300
Equity securities	569	18		587			587
	5,358	18		5,376	4,489		887
Changes in fair value recorded in other comprehensive income							
Debt securities available-for-sale:							
U.S. government obligations	203	7	(1)	209			209
Corporate	74	1	(1)	74			74
	277	8	(2)	283			283
Total	5,635	26	(2)	5,659	4,489		1,170
Of which:							
Restricted cash, current					30		
Restricted cash, non-current					300		

Note 6

Derivative financial instruments

The Company is exposed to certain currency, commodity, interest rate and equity risks arising from its global operating, financing and investing activities. The Company uses derivative instruments to reduce and manage the economic impact of these exposures.

Currency risk

Due to the global nature of the Company's operations, many of its subsidiaries are exposed to currency risk in their operating activities from entering into transactions in currencies other than their functional currency. To manage such currency risks, the Company's policies require its subsidiaries to hedge their foreign currency exposures from binding sales and purchase contracts denominated in foreign currencies. For forecasted foreign currency denominated sales of standard products and the related foreign currency denominated purchases, the Company's policy is to hedge up to a maximum of 100 percent of the forecasted foreign currency denominated exposures, depending on the length of the forecasted exposures. Forecasted exposures greater than 12 months are not hedged. Forward foreign exchange contracts are the main instrument used to protect the Company against the volatility of future cash flows (caused by changes in exchange rates) of contracted and forecasted sales and purchases denominated in foreign currencies. In addition, within its treasury operations, the Company primarily uses foreign exchange swaps and forward foreign exchange contracts to manage the currency and timing mismatches arising in its liquidity management activities.

Commodity risk

Various commodity products are used in the Company's manufacturing activities. Consequently it is exposed to volatility in future cash flows arising from changes in commodity prices. To manage the price risk of commodities, the Company's policies require that its subsidiaries hedge the commodity price risk exposures from binding contracts, as well as at least 50 percent (up to a maximum of 100 percent) of the forecasted commodity exposure over the next 12 months or longer (up to a maximum of 18 months). Primarily swap contracts are used to manage the associated price risks of commodities.

Interest rate risk

The Company has issued bonds at fixed rates. Interest rate swaps and cross-currency interest rate swaps are used to manage the interest rate and foreign currency risk associated with certain debt and generally such swaps are designated as fair value hedges. In addition, from time to time, the Company uses instruments such as interest rate swaps, interest rate futures, bond futures or forward rate agreements to manage interest rate risk arising from the Company's balance sheet structure but does not designate such instruments as hedges.

Equity risk

The Company is exposed to fluctuations in the fair value of its warrant appreciation rights (WARs) issued under its management incentive plan. A WAR gives its holder the right to receive cash equal to the market price of an equivalent listed warrant on the date of exercise. To eliminate such risk, the Company has purchased cash-settled call options, indexed to the shares of the Company, which entitle the Company to receive amounts equivalent to its obligations under the outstanding WARs.

Volume of derivative activity

In general, while the Company's primary objective in its use of derivatives is to minimize exposures arising from its business, certain derivatives are designated and qualify for hedge accounting treatment while others either are not designated or do not qualify for hedge accounting.

Foreign exchange and interest rate derivatives

The gross notional amounts of outstanding foreign exchange and interest rate derivatives (whether designated as hedges or not) were as follows:

Type of derivative (\$ in millions)	Total notional amounts at	
	December 31, 2022	December 31, 2021
Foreign exchange contracts	13,509	11,276
Embedded foreign exchange derivatives	933	815
Cross-currency interest rate swaps	855	906
Interest rate contracts	2,830	3,541

Derivative commodity contracts

The Company uses derivatives to hedge its direct or indirect exposure to the movement in the prices of commodities which are primarily copper, silver and aluminum. The following table shows the notional amounts of outstanding derivatives (whether designated as hedges or not), on a net basis, to reflect the Company's requirements for these commodities:

Type of derivative	Unit	Total notional amounts at	
		December 31, 2022	December 31, 2021
Copper swaps	metric tonnes	29,281	36,017
Silver swaps	ounces	2,012,213	2,842,533
Aluminum swaps	metric tonnes	6,825	7,125

Equity derivatives

At December 31, 2022 and 2021, the Company held 8 million and 9 million cash-settled call options indexed to ABB Ltd shares (conversion ratio 5:1) with a total fair value of \$15 million and \$29 million, respectively.

Cash flow hedges

As noted above, the Company mainly uses forward foreign exchange contracts to manage the foreign exchange risk of its operations, commodity swaps to manage its commodity risks and cash-settled call options to hedge its WAR liabilities. The Company applies cash flow hedge accounting in only limited cases. In these cases, the effective portion of the changes in their fair value is recorded in "Accumulated other comprehensive loss" and subsequently reclassified into earnings in the same line item and in the same period as the underlying hedged transaction affects earnings. For the year and three months ended December 31, 2022 and 2021, there were no significant amounts recorded for cash flow hedge accounting activities.

Fair value hedges

To reduce its interest rate exposure arising primarily from its debt issuance activities, the Company uses interest rate swaps and cross-currency interest rate swaps. Where such instruments are designated as fair value hedges, the changes in the fair value of these instruments, as well as the changes in the fair value of the risk component of the underlying debt being hedged, are recorded as offsetting gains and losses in "Interest and other finance expense".

The effect of derivative instruments, designated and qualifying as fair value hedges, on the Consolidated Income Statements was as follows:

(\$ in millions)		Year ended December 31,		Three months ended December 31,	
		2022	2021	2022	2021
Gains (losses) recognized in Interest and other finance expense:					
Interest rate contracts	Designated as fair value hedges	(91)	(55)	(8)	(15)
	Hedged item	93	56	8	15
Cross-currency interest rate swaps	Designated as fair value hedges	(134)	(37)	(9)	(10)
	Hedged item	135	34	16	9

Derivatives not designated in hedge relationships

Derivative instruments that are not designated as hedges or do not qualify as either cash flow or fair value hedges are economic hedges used for risk management purposes. Gains and losses from changes in the fair values of such derivatives are recognized in the same line in the income statement as the economically hedged transaction.

Furthermore, under certain circumstances, the Company is required to split and account separately for foreign currency derivatives that are embedded within certain binding sales or purchase contracts denominated in a currency other than the functional currency of the subsidiary and the counterparty.

The gains (losses) recognized in the Consolidated Income Statements on derivatives not designated in hedging relationships were as follows:

Type of derivative not designated as a hedge (\$ in millions)	Location	Gains (losses) recognized in income			
		Year ended December 31,		Three months ended December 31,	
		2022	2021	2022	2021
Foreign exchange contracts	Total revenues	(56)	3	145	52
	Total cost of sales	21	(53)	(36)	(29)
	SG&A expenses ⁽¹⁾	27	11	(8)	5
	Non-order related research and development	–	(2)	(2)	–
	Interest and other finance expense	(128)	(173)	11	(52)
Embedded foreign exchange contracts	Total revenues	(3)	(7)	(15)	7
	Total cost of sales	(11)	(2)	1	1
Commodity contracts	Total cost of sales	(47)	78	25	31
Other	Interest and other finance expense	4	–	–	–
Total		(193)	(145)	121	15

(1) SG&A expenses represent "Selling, general and administrative expenses".

The fair values of derivatives included in the Consolidated Balance Sheets were as follows:

(\$ in millions)	December 31, 2022			
	Derivative assets		Derivative liabilities	
	Current in "Other current assets"	Non-current in "Other non-current assets"	Current in "Other current liabilities"	Non-current in "Other non-current liabilities"
Derivatives designated as hedging instruments:				
Foreign exchange contracts	–	–	4	4
Interest rate contracts	–	–	5	57
Cross-currency interest rate swaps	–	–	–	288
Cash-settled call options	15	–	–	–
Total	15	–	9	349
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	140	21	80	5
Commodity contracts	13	–	12	–
Interest rate contracts	5	–	3	–
Embedded foreign exchange derivatives	11	6	17	13
Total	169	27	112	18
Total fair value	184	27	121	367

(\$ in millions)	December 31, 2021			
	Derivative assets		Derivative liabilities	
	Current in "Other current assets"	Non-current in "Other non-current assets"	Current in "Other current liabilities"	Non-current in "Other non-current liabilities"
Derivatives designated as hedging instruments:				
Foreign exchange contracts	-	-	3	5
Interest rate contracts	9	20	-	-
Cross-currency interest rate swaps	-	-	-	109
Cash-settled call options	29	-	-	-
Total	38	20	3	114
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	108	14	107	7
Commodity contracts	19	-	5	-
Interest rate contracts	1	-	2	-
Embedded foreign exchange derivatives	10	7	16	10
Total	138	21	130	17
Total fair value	176	41	133	131

Close-out netting agreements provide for the termination, valuation and net settlement of some or all outstanding transactions between two counterparties on the occurrence of one or more pre-defined trigger events.

Although the Company is party to close-out netting agreements with most derivative counterparties, the fair values in the tables above and in the Consolidated Balance Sheets at December 31, 2022 and 2021, have been presented on a gross basis.

The Company's netting agreements and other similar arrangements allow net settlements under certain conditions. At December 31, 2022 and 2021, information related to these offsetting arrangements was as follows:

(\$ in millions)	December 31, 2022				
	Gross amount of recognized assets	Derivative liabilities eligible for set-off in case of default	Cash collateral received	Non-cash collateral received	Net asset exposure
Derivatives	194	(96)	-	-	98
Total	194	(96)	-	-	98

(\$ in millions)	December 31, 2022				
	Gross amount of recognized liabilities	Derivative liabilities eligible for set-off in case of default	Cash collateral pledged	Non-cash collateral pledged	Net liability exposure
Derivatives	458	(96)	-	-	362
Total	458	(96)	-	-	362

(\$ in millions)	December 31, 2021				
	Gross amount of recognized assets	Derivative liabilities eligible for set-off in case of default	Cash collateral received	Non-cash collateral received	Net asset exposure
Derivatives	200	(104)	-	-	96
Total	200	(104)	-	-	96

(\$ in millions)	December 31, 2021				
	Gross amount of recognized liabilities	Derivative liabilities eligible for set-off in case of default	Cash collateral pledged	Non-cash collateral pledged	Net liability exposure
Derivatives	238	(104)	-	-	134
Total	238	(104)	-	-	134

Note 7

Fair values

The Company uses fair value measurement principles to record certain financial assets and liabilities on a recurring basis and, when necessary, to record certain non-financial assets at fair value on a non-recurring basis, as well as to determine fair value disclosures for certain financial instruments carried at amortized cost in the financial statements. Financial assets and liabilities recorded at fair value on a recurring basis include foreign currency, commodity and interest rate derivatives, as well as cash-settled call options and available-for-sale securities. Non-financial assets recorded at fair value on a non-recurring basis include long-lived assets that are reduced to their estimated fair value due to impairments.

Fair value is the price that would be received when selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses various valuation techniques including the market approach (using observable market data for identical or similar assets and liabilities), the income approach (discounted cash flow models) and the cost approach (using costs a market participant would incur to develop a comparable asset). Inputs used to determine the fair value of assets and liabilities are defined by a three-level hierarchy, depending on the nature of those inputs. The Company has categorized its financial assets and liabilities and non-financial assets measured at fair value within this hierarchy based on whether the inputs to the valuation technique are observable or unobservable. An observable input is based on market data obtained from independent sources, while an unobservable input reflects the Company's assumptions about market data.

The levels of the fair value hierarchy are as follows:

Level 1: Valuation inputs consist of quoted prices in an active market for identical assets or liabilities (observable quoted prices). Assets and liabilities valued using Level 1 inputs include exchange-traded equity securities, listed derivatives which are actively traded such as commodity futures, interest rate futures and certain actively traded debt securities.

Level 2: Valuation inputs consist of observable inputs (other than Level 1 inputs) such as actively quoted prices for similar assets, quoted prices in inactive markets and inputs other than quoted prices such as interest rate yield curves, credit spreads, or inputs derived from other observable data by interpolation, correlation, regression or other means. The adjustments applied to quoted prices or the inputs used in valuation models may be both observable and unobservable. In these cases, the fair value measurement is classified as Level 2 unless the unobservable portion of the adjustment or the unobservable input to the valuation model is significant, in which case the fair value measurement would be classified as Level 3. Assets and liabilities valued or disclosed using Level 2 inputs include investments in certain funds, certain debt securities that are not actively traded, interest rate swaps, cross-currency interest rate swaps, commodity swaps, cash-settled call options, forward foreign exchange contracts, foreign exchange swaps and forward rate agreements, time deposits, as well as financing receivables and debt.

Level 3: Valuation inputs are based on the Company's assumptions of relevant market data (unobservable input).

Whenever quoted prices involve bid-ask spreads, the Company ordinarily determines fair values based on mid-market quotes. However, for the purpose of determining the fair value of cash-settled call options serving as hedges of the Company's management incentive plan, bid prices are used.

When determining fair values based on quoted prices in an active market, the Company considers if the level of transaction activity for the financial instrument has significantly decreased or would not be considered orderly. In such cases, the resulting changes in valuation techniques would be disclosed. If the market is considered disorderly or if quoted prices are not available, the Company is required to use another valuation technique, such as an income approach.

Recurring fair value measures

The fair values of financial assets and liabilities measured at fair value on a recurring basis were as follows:

(\$ in millions)	December 31, 2022			Total fair value
	Level 1	Level 2	Level 3	
Assets				
Securities in "Marketable securities and short-term investments":				
Equity securities		355		355
Debt securities—U.S. government obligations	255			255
Debt securities—Other government obligations		58		58
Debt securities—Corporate		57		57
Derivative assets—current in "Other current assets"		184		184
Derivative assets—non-current in "Other non-current assets"		27		27
Total	255	681	–	936
Liabilities				
Derivative liabilities—current in "Other current liabilities"		121		121
Derivative liabilities—non-current in "Other non-current liabilities"		367		367
Total	–	488	–	488

(\$ in millions)	December 31, 2021			Total fair value
	Level 1	Level 2	Level 3	
Assets				
Securities in "Marketable securities and short-term investments":				
Equity securities		587		587
Debt securities—U.S. government obligations	209			209
Debt securities—Corporate		74		74
Derivative assets—current in "Other current assets"		176		176
Derivative assets—non-current in "Other non-current assets"		41		41
Total	209	878	–	1,087
Liabilities				
Derivative liabilities—current in "Other current liabilities"		133		133
Derivative liabilities—non-current in "Other non-current liabilities"		131		131
Total	–	264	–	264

The Company uses the following methods and assumptions in estimating fair values of financial assets and liabilities measured at fair value on a recurring basis:

- **Securities in "Marketable securities and short-term investments":** If quoted market prices in active markets for identical assets are available, these are considered Level 1 inputs; however, when markets are not active, these inputs are considered Level 2. If such quoted market prices are not available, fair value is determined using market prices for similar assets or present value techniques, applying an appropriate risk-free interest rate adjusted for non-performance risk. The inputs used in present value techniques are observable and fall into the Level 2 category.
- **Derivatives:** The fair values of derivative instruments are determined using quoted prices of identical instruments from an active market, if available (Level 1 inputs). If quoted prices are not available, price quotes for similar instruments, appropriately adjusted, or present value techniques, based on available market data, or option pricing models are used. Cash-settled call options hedging the Company's WAR liability are valued based on bid prices of the equivalent listed warrant. The fair values obtained using price quotes for similar instruments or valuation techniques represent a Level 2 input unless significant unobservable inputs are used.

Non-recurring fair value measures

The Company elects to record private equity investments without readily determinable fair values at cost, less impairment, adjusted for observable price changes. The Company reassesses at each reporting period whether these investments continue to qualify for this treatment. During the year ended December 31, 2022 and 2021, the Company recognized, in "Other income (expense), net", net fair value gains of \$52 million and \$108 million, respectively, related to certain of its private equity investments based on observable market price changes for an identical or similar investment of the same issuer of which net loss of \$4 million and net gain of \$2 million were recognized in the three months ended December 31, 2022 and 2021, respectively. The fair values were determined using Level 2 inputs. The carrying values of these investments, carried at fair value on a non-recurring basis, at December 31, 2022 and 2021, totaled \$106 million and \$169 million, respectively.

Apart from the transactions above, there were no additional significant non-recurring fair value measurements during the year ended December 31, 2022 and 2021.

Disclosure about financial instruments carried on a cost basis

The fair values of financial instruments carried on a cost basis were as follows:

(\$ in millions)	Carrying value	December 31, 2022			Total fair value
		Level 1	Level 2	Level 3	
Assets					
Cash and equivalents (excluding securities with original maturities up to 3 months):					
Cash	1,697	1,697			1,697
Time deposits	2,459		2,459		2,459
Restricted cash	18	18			18
Liabilities					
Short-term debt and current maturities of long-term debt (excluding finance lease obligations)					
	2,500	1,068	1,432		2,500
Long-term debt (excluding finance lease obligations)	4,976	4,813	30		4,843

(\$ in millions)	Carrying value	December 31, 2021			Total fair value
		Level 1	Level 2	Level 3	
Assets					
Cash and equivalents (excluding securities with original maturities up to 3 months):					
Cash	2,422	2,422			2,422
Time deposits	1,737		1,737		1,737
Restricted cash	30	30			30
Marketable securities and short-term investments (excluding securities):					
Time deposits	300		300		300
Restricted cash, non-current	300	300			300
Liabilities					
Short-term debt and current maturities of long-term debt (excluding finance lease obligations)					
	1,357	1,288	69		1,357
Long-term debt (excluding finance lease obligations)	4,043	4,234	58		4,292

The Company uses the following methods and assumptions in estimating fair values of financial instruments carried on a cost basis:

- Cash and equivalents (excluding securities with original maturities up to 3 months), Restricted cash, current and non-current, and Marketable securities and short-term investments (excluding securities): The carrying amounts approximate the fair values as the items are short-term in nature or, for cash held in banks, are equal to the deposit amount.
- Short-term debt and current maturities of long-term debt (excluding finance lease obligations): Short-term debt includes commercial paper, bank borrowings and overdrafts. The carrying amounts of short-term debt and current maturities of long-term debt, excluding finance lease obligations, approximate their fair values.
- Long-term debt (excluding finance lease obligations): Fair values of bonds are determined using quoted market prices (Level 1 inputs), if available. For bonds without available quoted market prices and other long-term debt, the fair values are determined using a discounted cash flow methodology based upon borrowing rates of similar debt instruments and reflecting appropriate adjustments for non-performance risk (Level 2 inputs).

Note 8

Contract assets and liabilities

The following table provides information about Contract assets and Contract liabilities:

(\$ in millions)	December 31, 2022	December 31, 2021	December 31, 2020
Contract assets	954	990	985
Contract liabilities	2,216	1,894	1,903

Contract assets primarily relate to the Company's right to receive consideration for work completed but for which no invoice has been issued at the reporting date. Contract assets are transferred to receivables when rights to receive payment become unconditional. Management expects that the majority of the amounts will be collected within one year of the respective balance sheet date.

Contract liabilities primarily relate to up-front advances received on orders from customers as well as amounts invoiced to customers in excess of revenues recognized predominantly on long-term projects. Contract liabilities are reduced as work is performed and as revenues are recognized. In addition to the amounts presented as Contract liabilities in the table above, \$59 million are non-current and are included in Other non-current liabilities in the Balance Sheet.

The significant changes in the Contract assets and Contract liabilities balances were as follows:

(\$ in millions)	Year ended December 31,			
	2022		2021	
	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Revenue recognized, which was included in the Contract liabilities balance at Jan 1, 2022/2021		(1,043)		(1,086)
Additions to Contract liabilities - excluding amounts recognized as revenue during the period		1,481		1,136
Receivables recognized that were included in the Contract assets balance at Jan 1, 2022/2021	(591)		(566)	

The Company considers its order backlog to represent its unsatisfied performance obligations. At December 31, 2022, the Company had unsatisfied performance obligations totaling \$19,867 million and, of this amount, the Company expects to fulfill approximately 77 percent of the obligations in 2023, approximately 13 percent of the obligations in 2024 and the balance thereafter.

Note 9

Debt

The Company's total debt at December 31, 2022 and 2021, amounted to \$7,678 million and \$5,561 million, respectively.

Short-term debt and current maturities of long-term debt

The Company's "Short-term debt and current maturities of long-term debt" consisted of the following:

(\$ in millions)	December 31, 2022	December 31, 2021
Short-term debt	1,448	78
Current maturities of long-term debt	1,087	1,306
Total	2,535	1,384

Short-term debt primarily represented issued commercial paper and short-term bank borrowings from various banks. At December 31, 2022, \$1,383 million was outstanding under the \$2 billion Euro-commercial paper program. At December 31, 2021, no amount was outstanding under this program.

On May 9, 2022, the Company repaid on maturity its USD 1,250 million 2.875% Notes.

Long-term debt

The Company's long-term debt at December 31, 2022 and 2021, amounted to \$5,143 million and \$4,177 million, respectively.

Outstanding bonds (including maturities within the next 12 months) were as follows:

(in millions)	December 31, 2022			December 31, 2021		
	Nominal outstanding	Carrying value ⁽¹⁾		Nominal outstanding	Carrying value ⁽¹⁾	
Bonds:						
2.875% USD Notes, due 2022				USD	1,250	\$ 1,258
0.625% EUR Instruments, due 2023	EUR	700	\$ 742	EUR	700	\$ 800
0% CHF Bonds, due 2023	CHF	275	\$ 298			–
0.625% EUR Instruments, due 2024	EUR	700	\$ 720			–
Floating Rate EUR Instruments, due 2024	EUR	500	\$ 536			–
0.75% EUR Instruments, due 2024	EUR	750	\$ 769	EUR	750	\$ 860
0.3% CHF Bonds, due 2024	CHF	280	\$ 303	CHF	280	\$ 306
2.1% CHF Bonds, due 2025	CHF	150	\$ 162			–
0.75% CHF Bonds, due 2027	CHF	425	\$ 460			–
3.8% USD Notes, due 2028 ⁽²⁾	USD	383	\$ 381	USD	383	\$ 381
1.0% CHF Bonds, due 2029	CHF	170	\$ 184	CHF	170	\$ 186
0% EUR Notes, due 2030	EUR	800	\$ 677	EUR	800	\$ 862
2.375% CHF Bonds, due 2030	CHF	150	\$ 162			–
4.375% USD Notes, due 2042 ⁽²⁾	USD	609	\$ 590	USD	609	\$ 589
Total			\$ 5,984			\$ 5,242

(1) USD carrying values include unamortized debt issuance costs, bond discounts or premiums, as well as adjustments for fair value hedge accounting, where appropriate.

(2) Prior to completing a cash tender offer in November 2020, the original principal amount outstanding, on each of the 3.8% USD Notes, due 2028, and the 4.375% USD Notes, due 2042, was USD 750 million.

In March 2022, the Company issued the following CHF bonds: (i) CHF 275 million of zero interest bonds, due 2023, and (ii) CHF 425 million of bonds, due 2027 with a coupon of 0.75 percent payable annually in arrears. The aggregate net proceeds of these CHF bond issues, after discount and fees, amounted to CHF 699 million (equivalent to approximately \$751 million on the date of issuance).

Also in March 2022, the Company issued the following EUR Instruments, both due in 2024, (i) EUR 700 million, paying interest annually in arrears at a fixed rate of 0.625 percent per annum, and (ii) EUR 500 million floating rate notes, paying interest quarterly in arrears at a variable rate of 70 basis points above the 3-month EURIBOR. In relation to these EUR Instruments, the Company recorded net proceeds (after the respective discount and premium, as well as fees) of EUR 1,203 million (equivalent to \$1,335 million on the date of issuance). Interest rate swaps have been used to modify the characteristics of the EUR 700 million Instruments, due 2024. After considering the impact of these interest rate swaps, these Instruments effectively become floating rate obligations.

In October 2022, the Company issued the following CHF bonds: (i) CHF 150 million of 2.1 percent bonds, due 2025, and (ii) CHF 150 million of 2.375 percent bonds, due 2030 with interest payable annually in arrears. The aggregate net proceeds of these CHF bond issues, after discount and fees, amounted to CHF 299 million (equivalent to approximately \$304 million on date of issuance).

Subsequent events

On January 16, 2023, the Company issued the following EUR Instruments: (i) EUR 500 million of 3.25 percent notes, due 2027, and (ii) EUR 750 million of 3.375 percent notes, due 2031, both paying interest annually in arrears. The aggregate net proceeds of these EUR Instruments, after discount and fees, amounted to EUR 1,235 million (equivalent to approximately \$1,338 million on date of issuance).

As of February 1, 2023, the Company has repaid substantially all amounts previously outstanding at December 31, 2022, under the \$2 billion Euro-commercial paper program.

Note 10

Commitments and contingencies

Contingencies—Regulatory, Compliance and Legal

Regulatory

As a result of an internal investigation, the Company self-reported to the Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States as well as to the Serious Fraud Office (SFO) in the United Kingdom concerning certain of its past dealings with Unaoil and its subsidiaries, including alleged improper payments made by these entities to third parties. In May 2020, the SFO closed its investigation, which it originally announced in February 2017, as the case did not meet the relevant test for prosecution and in December 2022 this matter was closed without action by the DOJ as part of the Kusile settlement.

Based on findings during an internal investigation, the Company self-reported to the SEC and the DoJ, in the United States, to the Special Investigating Unit (SIU) and the National Prosecuting Authority (NPA) in South Africa as well as to various authorities in other countries potential suspect payments and other compliance concerns in connection with some of the Company's dealings with Eskom and related persons. Many of those parties have expressed an interest in, or commenced an investigation into, these matters and the Company is cooperating fully with them. The Company paid \$104 million to Eskom in December 2020 as part of a full and final settlement with Eskom and the Special Investigating Unit relating to improper payments and other compliance issues associated with the Controls and Instrumentation Contract, and its Variation Orders for Units 1 and 2 at Kusile. The Company made a provision of approximately \$325 million which was recorded in Other income (expense), net, during the third quarter of 2022. In December 2022, the Company settled with the SEC and DOJ as well as the authorities in South Africa and Switzerland. The matter is still pending with the authorities in Germany, but the Company does not believe that it will need to record any additional provisions for this matter.

General

The Company is aware of proceedings, or the threat of proceedings, against it and others in respect of private claims by customers and other third parties with regard to certain actual or alleged anticompetitive practices. Also, the Company is subject to other claims and legal proceedings, as well as investigations carried out by various law enforcement authorities. With respect to the above-mentioned claims, regulatory matters, and any related proceedings, the Company will bear the related costs, including costs necessary to resolve them.

Liabilities recognized

At December 31, 2022 and 2021, the Company had aggregate liabilities of \$86 million and \$104 million, respectively, included in "Other provisions" and "Other non-current liabilities", for the above regulatory, compliance and legal contingencies, and none of the individual liabilities recognized was significant. As it is not possible to make an informed judgment on, or reasonably predict, the outcome of certain matters and as it is not possible, based on information currently available to management, to estimate the maximum potential liability on other matters, there could be adverse outcomes beyond the amounts accrued.

Guarantees

General

The following table provides quantitative data regarding the Company's third-party guarantees. The maximum potential payments represent a "worst-case scenario", and do not reflect management's expected outcomes.

Maximum potential payments (\$ in millions)	December 31, 2022	December 31, 2021
Performance guarantees	4,300	4,540
Financial guarantees	96	52
Indemnification guarantees ⁽¹⁾	–	136
Total⁽²⁾	4,396	4,728

(1) Certain indemnifications provided to Hitachi in connection with the divestment of Power Grids were without limit.

(2) Maximum potential payments include amounts in both continuing and discontinued operations.

The carrying amount of liabilities recorded in the Consolidated Balance Sheets reflects the Company's best estimate of future payments, which it may incur as part of fulfilling its guarantee obligations. In respect of the above guarantees, the carrying amounts of liabilities at December 31, 2022 and 2021, amounted to \$1 million and \$156 million, respectively, the majority of which is included in discontinued operations.

The Company is party to various guarantees providing financial or performance assurances to certain third parties. These guarantees, which have various maturities up to 2035, mainly consist of performance guarantees whereby (i) the Company guarantees the performance of a third party's product or service according to the terms of a contract and (ii) as member of a consortium/joint-venture that includes third parties, the Company guarantees not only its own performance but also the work of third parties. Such guarantees may include guarantees that a project will be completed within a specified time. If the third party does not fulfill the obligation, the Company will compensate the guaranteed party in cash or in kind. The original maturity dates for the majority of these performance guarantees range from one to ten years.

In conjunction with the divestment of the high-voltage cable and cables accessories businesses, the Company has entered into various performance guarantees with other parties with respect to certain liabilities of the divested business. At December 31, 2022 and 2021, the maximum potential payable under these guarantees amounts to \$843 million and \$911 million, respectively, and these guarantees have various maturities ranging from five to ten years.

The Company retained obligations for financial, performance and indemnification guarantees related to the sale of the Power Grids business (see Note 3 for details). The performance and financial guarantees have been indemnified by Hitachi at the same proportion of its ownership in Hitachi Energy Ltd, (increasing from 80.1 percent at December 31, 2021, to 100 percent at December 31, 2022). These guarantees, which have various maturities up to 2035, primarily consist of bank guarantees, standby letters of credit, business performance guarantees and other trade-related guarantees, the majority of which have original maturity dates ranging from one to ten years. The maximum amount payable under these guarantees at December 31, 2022 and 2021, is approximately \$3.0 billion and \$3.2 billion, respectively. On completing the sale of the Company's remaining 19.9 percent interest in Hitachi Energy to Hitachi, the Company also settled certain existing indemnification guarantees that were due to be settled concurrent with such transaction. As a result, in the year and three months ended December 31, 2022, the Company recorded \$136 million of cash outflows for the settlement of these liabilities (recorded in discontinued operations).

Commercial commitments

In addition, in the normal course of bidding for and executing certain projects, the Company has entered into standby letters of credit, bid/performance bonds and surety bonds (collectively "performance bonds") with various financial institutions. Customers can draw on such performance bonds in the event that the Company does not fulfill its contractual obligations. The Company would then have an obligation to reimburse the financial institution for amounts paid under the performance bonds. At December 31, 2022 and 2021, the total outstanding performance bonds aggregated to \$2.9 billion and \$3.6 billion, respectively, of each of these amounts \$0.1 billion relates to discontinued operations. There have been no significant amounts reimbursed to financial institutions under these types of arrangements in the year and three months ended December 31, 2022 and 2021.

Product and order-related contingencies

The Company calculates its provision for product warranties based on historical claims experience and specific review of certain contracts. The reconciliation of the "Provisions for warranties", including guarantees of product performance, was as follows:

(\$ in millions)	2022	2021
Balance at January 1,	1,005	1,035
Net change in warranties due to acquisitions, divestments, spin-offs and liabilities held for	(24)	1
Claims paid in cash or in kind	(157)	(222)
Net increase in provision for changes in estimates, warranties issued and warranties expired	252	226
Exchange rate differences	(48)	(35)
Balance at December 31,	1,028	1,005

Provisions for contractual penalties

During the three months ended December 31, 2022, the Company reversed a provision of \$61 million it had previously recorded relating to one of its divested businesses based on a settlement proposal issued by the ruling court. As the provision related to a customer contractual obligation, the adjustment was reported as an increase in Sales of products and resulted in an increase in earnings per share (basic and diluted) of \$0.03 for both the year and three months ended December 31, 2022. In addition, as this amount relates to a divested business, it has been excluded from the Company's primary measure of segment performance, Operational EBITA (See Note 17).

Note 11

Income taxes

The effective tax rate of 22.3 percent in year ended December 31, 2022, was higher than the effective tax rate of 18.3 percent in the same period in 2021, primarily because 2021 includes a non-taxable gain in connection with the sale of the Dodge business while 2022 included impacts of changes in valuation allowances primarily a positive impact from a reversal of a valuation allowance in the Americas for \$208 million (recorded in the fourth quarter) offset partially by the negative impact of non-deductible regulatory penalties in connection with the Kusile project.

Note 12

Employee benefits

The Company operates defined benefit pension plans, defined contribution pension plans, and termination indemnity plans, in accordance with local regulations and practices. At December 31, 2022, the Company's most significant defined benefit pension plans are in Switzerland as well as in Germany, the United Kingdom, and the United States. These plans cover a large portion of the Company's employees and provide benefits to employees in the event of death, disability, retirement, or termination of employment. Certain of these plans are multi-employer plans. The Company also operates other postretirement benefit plans including postretirement health care benefits and other employee-related benefits for active employees including long-service award plans. The measurement date used for the Company's employee benefit plans is December 31. The funding policies of the Company's plans are consistent with the local government and tax requirements.

Net periodic benefit cost of the Company's defined benefit pension and other postretirement benefit plans consisted of the following:

(\$ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International		benefits	
	2022	2021	2022	2021	2022	2021
Year ended December 31,						
Operational pension cost:						
Service cost	50	61	38	47	–	1
Operational pension cost	50	61	38	47	–	1
Non-operational pension cost (credit):						
Interest cost	13	(5)	87	72	1	2
Expected return on plan assets	(116)	(116)	(153)	(178)	–	–
Amortization of prior service cost (credit)	(9)	(9)	(2)	(2)	(2)	(3)
Amortization of net actuarial loss	–	–	58	67	(3)	(2)
Curtailements, settlements and special termination benefits	4	1	7	7	–	–
Non-operational pension cost (credit)	(108)	(129)	(3)	(34)	(4)	(3)
Net periodic benefit cost (credit)	(58)	(68)	35	13	(4)	(2)

(\$ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
	2022	2021	2022	2021	2022	2021
Three months ended December 31,						
Operational pension cost:						
Service cost	10	16	12	16	–	1
Operational pension cost	10	16	12	16	–	1
Non-operational pension cost (credit):						
Interest cost	11	(2)	26	20	–	1
Expected return on plan assets	(29)	(28)	(40)	(45)	–	–
Amortization of prior service cost (credit)	(4)	(3)	–	–	(1)	(2)
Amortization of net actuarial loss	–	–	14	14	(1)	–
Curtailments, settlements and special termination benefits	4	1	7	8	–	–
Non-operational pension cost (credit)	(18)	(32)	7	(3)	(2)	(1)
Net periodic benefit cost (credit)	(8)	(16)	19	13	(2)	–

The components of net periodic benefit cost other than the service cost component are included in the line “Non-operational pension (cost) credit” in the income statement.

Employer contributions were as follows:

(\$ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
	2022	2021	2022	2021	2022	2021
Year ended December 31,						
Total contributions to defined benefit pension and other postretirement benefit plans	37	63	58	124	7	9
Of which, discretionary contributions to defined benefit pension plans	–	–	18	61	–	–

(\$ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
	2022	2021	2022	2021	2022	2021
Three months ended December 31,						
Total contributions to defined benefit pension and other postretirement benefit plans	4	17	34	82	2	1
Of which, discretionary contributions to defined benefit pension plans	–	–	18	50	–	–

During the year and three months ended December 31, 2022, total contributions included non-cash contributions of marketable debt securities having a fair value at the contribution date of \$12 million. These non-cash contributions were made to certain of the Company’s pension plans in Germany during the three months ended December 31, 2022. During the year and three months ended December 31, 2021, total contributions included non-cash contributions of marketable debt securities having a fair value at the contribution date of \$53 million. These non-cash contributions were made to certain of the Company’s pension plans in Germany and the United Kingdom during the three months ended December 31, 2021.

Note 13

Stockholder's equity

At the Annual General Meeting of Shareholders (AGM) on March 24, 2022, shareholders approved the proposal of the Board of Directors to distribute 0.82 Swiss francs per share to shareholders. The declared dividend amounted to \$1,700 million, with the Company disbursing a portion in March and the remaining amounts in April.

In March 2022, the Company completed the share buyback program that was launched in April 2021. This program was executed on a second trading line on the SIX Swiss Exchange. Through this program, the Company purchased a total of 90 million shares for approximately \$3.1 billion, of which 31 million shares were purchased in the first quarter of 2022 (resulting in an increase in Treasury stock of \$1,089 million). At the 2022 AGM, shareholders approved the cancellation of 88 million shares which had been purchased under the share buyback programs launched in July 2020 and April 2021. The cancellation was completed in the second quarter of 2022, resulting in a decrease in Treasury stock of \$2,876 million and a corresponding total decrease in Capital stock, Additional paid-in capital and Retained Earnings.

Also in March 2022, the Company announced a new share buyback program of up to \$3 billion. This program, which was launched in April 2022, is being executed on a second trading line on the SIX Swiss Exchange and is planned to run until the Company’s 2023 AGM. Through this program, the Company purchased, from the program’s launch in April 2022 to December 31, 2022, 60 million shares, resulting in an increase in Treasury stock of \$1,753 million.

In addition to the share buyback programs, the Company purchased 20 million of its own shares on the open market in 2022, mainly for use in connection with its employee share plans, resulting in an increase in Treasury stock of \$660 million.

In 2022, the Company delivered, out of treasury stock, 16 million shares in connection with its Management Incentive Plan.

In November 2022, the Company received gross proceeds of 203 million Swiss francs (\$216 million) through a private placement of shares in its ABB E-Mobility subsidiary, ABB E-mobility Holding Ltd (ABB E-Mobility), reducing the Company’s beneficial ownership in the subsidiary from 100 percent to 92 percent. This resulted in an increase in Additional paid-in capital of \$120 million.

Subsequent event

In January 2023, the Company signed an agreement to increase the amount of funding raised through the private placement of shares in ABB E-mobility, increasing the total funding by an additional 325 million Swiss francs. The transaction is scheduled to be closed in the beginning of February 2023 and, after completion of this transaction, the Company will have a beneficial ownership in ABB E-Mobility of 81 percent.

Note 14

Earnings per share

Basic earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the period. Diluted earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the period, assuming that all potentially dilutive securities were exercised, if dilutive. Potentially dilutive securities comprise outstanding written call options, and outstanding options and shares granted subject to certain conditions under the Company's share-based payment arrangements.

Basic earnings per share

(\$ in millions, except per share data in \$)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	2,517	4,625	1,138	2,674
Loss from discontinued operations, net of tax	(42)	(79)	(6)	(34)
Net income	2,475	4,546	1,132	2,640
Weighted-average number of shares outstanding (in millions)	1,899	2,001	1,870	1,974
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	1.33	2.31	0.61	1.35
Loss from discontinued operations, net of tax	(0.02)	(0.04)	0.00	(0.02)
Net income	1.30	2.27	0.61	1.34

Diluted earnings per share

(\$ in millions, except per share data in \$)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	2,517	4,625	1,138	2,674
Loss from discontinued operations, net of tax	(42)	(79)	(6)	(34)
Net income	2,475	4,546	1,132	2,640
Weighted-average number of shares outstanding (in millions)	1,899	2,001	1,870	1,974
Effect of dilutive securities:				
Call options and shares	11	18	11	17
Adjusted weighted-average number of shares outstanding (in millions)	1,910	2,019	1,881	1,991
Diluted earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	1.32	2.29	0.60	1.34
Loss from discontinued operations, net of tax	(0.02)	(0.04)	0.00	(0.02)
Net income	1.30	2.25	0.60	1.33

Note 15

Reclassifications out of accumulated other comprehensive loss

The following table shows changes in "Accumulated other comprehensive loss" (OCI) attributable to ABB, by component, net of tax:

(\$ in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on available-for-sale securities	Pension and other postretirement plan adjustments	Derivative instruments and hedges	Total OCI
Balance at January 1, 2021	(2,460)	17	(1,556)	(3)	(4,002)
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	(521)	(10)	411	8	(112)
Amounts reclassified from OCI	(9)	(5)	56	(13)	29
Total other comprehensive (loss) income	(530)	(15)	467	(5)	(83)
Less:					
Amounts attributable to noncontrolling interests	4	-	-	-	4
Balance at December 31, 2021⁽¹⁾	(2,993)	2	(1,089)	(8)	(4,088)
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	(685)	(23)	226	(12)	(494)
Amounts reclassified from OCI	46	2	29	12	89
Total other comprehensive (loss) income	(639)	(21)	255	-	(405)
Spin-off of the Turbocharging Division	(93)	-	(5)	-	(98)
Less:					
Amounts attributable to noncontrolling interests and redeemable noncontrolling interests	(34)	-	(1)	-	(35)
Balance at December 31, 2022	(3,691)	(19)	(838)	(8)	(4,556)

(1) Due to rounding, numbers presented may not add to the totals provided.

The following table reflects amounts reclassified out of OCI in respect of Pension and other postretirement plan adjustments:

(\$ in millions)	Location of (gains) losses reclassified from OCI	Year ended December 31,		Three months ended December 31,	
		2022	2021	2022	2021
Foreign currency translation adjustments:					
Changes attributable to divestments	Other income (expense), net	41	(9)	41	(9)
Net loss on complete or substantially complete liquidations of foreign subsidiaries	Other income (expense), net	5	-	-	-
Amounts reclassified from OCI		46	(9)	41	(9)
Pension and other postretirement plan adjustments:					
Amortization of prior service cost (credit)	Non-operational pension (cost) credit ⁽¹⁾	(13)	(14)	(5)	(5)
Amortization of net actuarial loss	Non-operational pension (cost) credit ⁽¹⁾	55	65	13	14
Net gain (loss) from settlements and curtailments	Non-operational pension (cost) credit ⁽¹⁾	11	7	11	8
Changes attributable to divestments	Other income (expense), net	(8)	(8)	(8)	(8)
Total before tax		45	50	11	9
Tax	Income tax expense	(16)	4	(6)	(5)
Changes attributable to divestments	Other income (expense), net	-	2	-	2
Amounts reclassified from OCI		29	56	5	6

The amounts in respect of Unrealized gains (losses) on available-for-sale securities and Derivative instruments and hedges were not significant for the year and three months ended December 31, 2022 and 2021.

Note 16

Restructuring and related expenses

Other restructuring-related activities

In the year and three months ended December 31, 2022 and 2021, the Company executed various other restructuring-related activities and incurred the following expenses:

(\$ in millions)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Employee severance costs	81	101	17	57
Estimated contract settlement, loss order and other costs	209	31	4	16
Inventory and long-lived asset impairments	7	24	2	7
Total	297	156	23	80

Expenses associated with these activities are recorded in the following line items in the Consolidated Income Statements:

(\$ in millions)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Total cost of sales	24	71	11	35
Selling, general and administrative expenses	40	21	1	11
Non-order related research and development expenses	2	2	-	2
Other income (expense), net	231	62	11	32
Total	297	156	23	80

During the second quarter of 2022, the Company completed a plan (initiated in 2021) to fully exit its full train retrofit business by transferring the remaining contracts to a third party. The Company recorded \$195 million of restructuring expenses in connection with this business exit primarily for contract settlement costs. Prior to exiting this business, the business was reported as part of the Company's non-core business activities within Corporate and Other.

At December 31, 2022 and 2021, \$198 million and \$212 million, respectively, was recorded for other restructuring-related liabilities and is included primarily in Other provisions.

Note 17

Operating segment data

The Chief Operating Decision Maker (CODM) is the Chief Executive Officer. The CODM allocates resources to and assesses the performance of each operating segment using the information outlined below. The Company is organized into the following segments, based on products and services: Electrification, Motion, Process Automation and Robotics & Discrete Automation. The remaining operations of the Company are included in Corporate and Other.

A description of the types of products and services provided by each reportable segment is as follows:

- Electrification:** manufactures and sells electrical products and solutions which are designed to provide safe, smart and sustainable electrical flow from the substation to the socket. The portfolio of increasingly digital and connected solutions includes electric vehicle charging infrastructure, renewable power solutions, modular substation packages, distribution automation products, switchboard and panelboards, switchgear, UPS solutions, circuit breakers, measuring and sensing devices, control products, wiring accessories, enclosures and cabling systems and intelligent home and building solutions, designed to integrate and automate lighting, heating, ventilation, security and data communication networks. The products and services are delivered through seven operating Divisions: Distribution Solutions, Smart Power, Smart Buildings, E-Mobility, Installation Products, Power Conversion and Service.
- Motion:** designs, manufactures, and sells drives, motors, generators and traction converters that are driving the low-carbon future for industries, cities, infrastructure and transportation. These products, digital technology and related services enable industrial customers to increase energy efficiency, improve safety and reliability, and achieve precise control of their processes. Building on over 130 years of cumulative experience in electric powertrains, the Business Area combines domain expertise and technology to deliver the optimum solution for a wide range of applications in all industrial segments. In addition, the Business Area, along with its partners, has a leading global service presence. These products and services are delivered through seven operating Divisions: Large Motors and Generators, IEC LV Motors, NEMA Motors, Drive Products, System Drives, Service and Traction, as well as, prior to its sale in November 2021, the Mechanical Power Transmission Division.

- **Process Automation:** develops and sells a broad range of industry-specific, integrated automation, electrification and digital systems and solutions, as well as digital solutions, lifecycle services, advanced industrial analytics and artificial intelligence applications and suites for the process, marine and hybrid industries. Products and solutions include control technologies, advanced process control software and manufacturing execution systems, sensing, measurement and analytical instrumentation, marine propulsion systems and turbochargers. In addition, the Business Area offers a comprehensive range of services ranging from repair to advanced services such as remote monitoring, preventive maintenance, asset performance management, emission monitoring and cybersecurity services. The products, systems and services are delivered through five operating Divisions: Energy Industries, Process Industries, Marine & Ports and Measurement & Analytics, as well as, prior to its spin-off in October 2022, the Turbocharging Division (Accelleron).
- **Robotics & Discrete Automation:** delivers its products, solutions and services through two operating Divisions: Robotics and Machine Automation. Robotics includes industrial robots, autonomous mobile robotics, software, robotic solutions, field services, spare parts, and digital services. Machine Automation specializes in solutions based on its programmable logic controllers (PLC), industrial PCs (IPC), servo motion, transport systems and machine vision. Both Divisions offer engineering and simulation software as well as a comprehensive range of digital solutions.

Corporate and Other: includes headquarter costs, the Company's corporate real estate activities, Corporate Treasury Operations, historical operating activities of certain divested businesses and other non-core operating activities.

The primary measure of profitability on which the operating segments are evaluated is Operational EBITA, which represents income from operations excluding:

- amortization expense on intangibles arising upon acquisition (acquisition-related amortization),
- restructuring, related and implementation costs,
- changes in the amount recorded for obligations related to divested businesses occurring after the divestment date (changes in obligations related to divested businesses),
- changes in estimates relating to opening balance sheets of acquired businesses (changes in pre-acquisition estimates),
- gains and losses from sale of businesses (including fair value adjustment on assets and liabilities held for sale),
- acquisition- and divestment-related expenses and integration costs,
- other income/expense relating to the Power Grids joint venture,
- certain other non-operational items, as well as
- foreign exchange/commodity timing differences in income from operations consisting of: (a) unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives), (b) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (c) unrealized foreign exchange movements on receivables/payables (and related assets/liabilities).

Certain other non-operational items generally includes certain regulatory, compliance and legal costs, certain asset write downs/impairments and certain other fair value changes, as well as other items which are determined by management on a case-by-case basis.

The CODM primarily reviews the results of each segment on a basis that is before the elimination of profits made on inventory sales between segments. Segment results below are presented before these eliminations, with a total deduction for intersegment profits to arrive at the Company's consolidated Operational EBITA. Intersegment sales and transfers are accounted for as if the sales and transfers were to third parties, at current market prices.

The following tables present disaggregated segment revenues from contracts with customers, Operational EBITA, and the reconciliations of consolidated Operational EBITA to Income from continuing operations before taxes for the year and three months ended December 31, 2022 and 2021, as well as total assets at December 31, 2022 and 2021.

(\$ in millions)	Year ended December 31, 2022					Total
	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	
Geographical markets						
Europe	4,449	2,031	2,248	1,494	63	10,285
The Americas	5,332	2,148	1,566	524	3	9,573
of which: United States	3,918	1,787	943	373	2	7,023
Asia, Middle East and Africa	4,123	2,101	2,199	1,155	10	9,588
of which: China	1,984	1,147	666	897	2	4,696
	13,904	6,280	6,013	3,173	76	29,446
Product type						
Products	12,179	5,380	1,337	1,863	7	20,766
Systems	830	–	1,974	832	69	3,705
Services and other	895	900	2,702	478	–	4,975
	13,904	6,280	6,013	3,173	76	29,446
Third-party revenues	13,904	6,280	6,013	3,173	76	29,446
Intersegment revenues	201	465	31	8	(705)	–
Total revenues⁽¹⁾	14,105	6,745	6,044	3,181	(629)	29,446

Year ended December 31, 2021						
(\$ in millions)	Electrification	Motion	Process Automation	Robotics &	Corporate and Other	Total
				Discrete Automation		
Geographical markets						
Europe	4,517	2,015	2,416	1,578	3	10,529
The Americas	4,465	2,346	1,431	439	5	8,686
of which: United States	3,304	1,952	833	308	–	6,397
Asia, Middle East and Africa	3,975	2,111	2,367	1,270	7	9,730
of which: China	2,087	1,156	740	949	–	4,932
	12,957	6,472	6,214	3,287	15	28,945
Product type						
Products	10,706	5,555	1,496	2,159	4	19,920
Systems	1,367	–	1,802	645	11	3,825
Services and other	884	917	2,916	483	–	5,200
	12,957	6,472	6,214	3,287	15	28,945
Third-party revenues	12,957	6,472	6,214	3,287	15	28,945
Intersegment revenues	230	453	45	10	(738)	–
Total revenues⁽¹⁾	13,187	6,925	6,259	3,297	(723)	28,945

Three months ended December 31, 2022						
(\$ in millions)	Electrification	Motion	Process Automation	Robotics &	Corporate and Other	Total
				Discrete Automation		
Geographical markets						
Europe	1,158	601	522	424	60	2,765
The Americas	1,403	574	431	147	–	2,555
of which: United States	1,048	480	262	106	2	1,898
Asia, Middle East and Africa	1,057	537	592	317	1	2,504
of which: China	454	259	168	251	1	1,133
	3,618	1,712	1,545	888	61	7,824
Product type						
Products	3,146	1,449	292	526	(2)	5,411
Systems	218	–	599	234	63	1,114
Services and other	254	263	654	128	–	1,299
	3,618	1,712	1,545	888	61	7,824
Third-party revenues	3,618	1,712	1,545	888	61	7,824
Intersegment revenues	45	133	6	3	(187)	–
Total revenues⁽¹⁾	3,663	1,845	1,551	891	(126)	7,824

Three months ended December 31, 2021						
(\$ in millions)	Electrification	Motion	Process Automation	Robotics &	Corporate and Other	Total
				Discrete Automation		
Geographical markets						
Europe	1,160	532	700	377	(13)	2,756
The Americas	1,153	514	421	108	2	2,198
of which: United States	839	412	256	72	–	1,579
Asia, Middle East and Africa	1,070	557	673	313	–	2,613
of which: China	510	295	193	235	–	1,233
	3,383	1,603	1,794	798	(11)	7,567
Product type						
Products	2,600	1,353	399	520	(11)	4,861
Systems	543	–	544	153	–	1,240
Services and other	240	250	851	125	–	1,466
	3,383	1,603	1,794	798	(11)	7,567
Third-party revenues	3,383	1,603	1,794	798	(11)	7,567
Intersegment revenues	62	132	11	1	(206)	–
Total revenues⁽¹⁾	3,445	1,735	1,805	799	(217)	7,567

(1) Due to rounding, numbers presented may not add to the totals provided.

(\$ in millions)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Operational EBITA:				
Electrification	2,328	2,121	572	507
Motion	1,163	1,183	318	278
Process Automation	848	801	203	247
Robotics & Discrete Automation	340	355	125	64
Corporate and Other				
– Non-core and divested businesses	5	(39)	(3)	–
– Corporate costs and Other Intersegment elimination	(174)	(299)	(69)	(108)
Total	4,510	4,122	1,146	988
Acquisition-related amortization	(229)	(250)	(55)	(59)
Restructuring, related and implementation costs ⁽¹⁾	(347)	(160)	(47)	(79)
Changes in obligations related to divested businesses	88	(9)	71	7
Changes in pre-acquisition estimates	(10)	6	(10)	–
Gains and losses from sale of businesses	(7)	2,193	(3)	2,184
Acquisition- and divestment-related expenses and integration costs	(195)	(132)	(24)	(58)
Other income/expense relating to the Power Grids joint venture	(57)	(34)	10	–
Foreign exchange/commodity timing differences in income from operations:				
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	32	(54)	139	52
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(48)	(2)	–	(7)
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(15)	20	(70)	(13)
Certain other non-operational items:				
Regulatory, compliance and legal costs	(317)	–	16	3
Business transformation costs ⁽²⁾	(152)	(92)	(38)	(33)
Favorable resolution of an uncertain purchase price adjustment	15	6	15	1
Gains and losses from sale of investments in equity-accounted companies	43	–	43	–
Certain other fair value changes, including asset impairments	45	119	(13)	1
Other non-operational items	(19)	(15)	5	(12)
Income from operations	3,337	5,718	1,185	2,975
Interest and dividend income	72	51	22	14
Interest and other finance expense	(130)	(148)	(23)	(40)
Non-operational pension (cost) credit	115	166	13	36
Income from continuing operations before taxes	3,394	5,787	1,197	2,985

(1) Includes impairment of certain assets.

(2) Amount includes ABB Way process transformation costs of \$131 million and \$80 million for year ended December 31, 2022 and 2021, respectively, and \$33 million and \$28 million for the three months ended December 31, 2022 and 2021, respectively.

(\$ in millions)	Total assets ⁽¹⁾	
	December 31, 2022	December 31, 2021
Electrification	13,992	12,831
Motion	6,565	5,936
Process Automation	4,598	5,009
Robotics & Discrete Automation	4,901	4,860
Corporate and Other ⁽²⁾	9,092	11,624
Consolidated	39,148	40,260

(1) Total assets are after intersegment eliminations and therefore reflect third-party assets only.

(2) At December 31, 2022 and 2021, respectively, Corporate and Other includes \$96 million and \$136 million of assets in the Power Grids business which is reported as discontinued operations (see Note 3). In addition, at December 31, 2021, Corporate and Other included \$1,609 million, related to the equity investment in Hitachi Energy Ltd, which was subsequently sold in December 2022 (see Note 4).

2023 Realignment of segments

Commencing in January 2023, the E-mobility Division is no longer managed within the Electrification Business Area and has become an independent Division and a separate operating segment. The Division does not currently meet any of the size thresholds to be considered a reportable segment and will be presented within Corporate and Other.

Supplemental Reconciliations and Definitions

The following reconciliations and definitions include measures which ABB uses to supplement its Consolidated Financial Information (unaudited) which is prepared in accordance with United States generally accepted accounting principles (U.S. GAAP). Certain of these financial measures are, or may be, considered non-GAAP financial measures as defined in the rules of the U.S. Securities and Exchange Commission (SEC).

While ABB's management believes that the non-GAAP financial measures herein are useful in evaluating ABB's operating results, this information should be considered as supplemental in nature and not as a substitute for the related financial information prepared in accordance with U.S. GAAP. Therefore these measures should not be viewed in isolation but considered together with the Consolidated Financial Information (unaudited) prepared in accordance with U.S. GAAP as of and for the year and three months ended December 31, 2022.

Comparable growth rates

Growth rates for certain key figures may be presented and discussed on a "comparable" basis. The comparable growth rate measures growth on a constant currency basis. Since we are a global company, the comparability of our operating results reported in U.S. dollars is affected by foreign currency exchange rate fluctuations. We calculate the impacts from foreign currency fluctuations by translating the current-year periods' reported key figures into U.S. dollar amounts using the exchange rates in effect for the comparable periods in the previous year.

Comparable growth rates are also adjusted for changes in our business portfolio. Adjustments to our business portfolio occur due to acquisitions, divestments, or by exiting specific business activities or customer markets. The adjustment for portfolio changes is calculated as follows: where the results of any business acquired or divested have not been consolidated and reported for the entire duration of both the current and comparable periods, the reported key figures of such business are adjusted to exclude the relevant key figures of any corresponding quarters which are not comparable when computing the comparable growth rate. Certain portfolio changes which do not qualify as divestments under U.S. GAAP have been treated in a similar manner to divestments. Changes in our portfolio where we have exited certain business activities or customer markets are adjusted as if the relevant business was divested in the period when the decision to cease business activities was taken. We do not adjust for portfolio changes where the relevant business has annualized revenues of less than \$50 million.

The following tables provide reconciliations of reported growth rates of certain key figures to their respective comparable growth rate.

Comparable growth rate reconciliation by Business Area

Business Area	Q4 2022 compared to Q4 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Electrification	-2%	8%	0%	6%	6%	10%	0%	16%
Motion	-11%	8%	3%	0%	6%	11%	3%	20%
Process Automation	-8%	8%	11%	11%	-14%	8%	11%	5%
Robotics & Discrete Automation	-27%	8%	0%	-19%	12%	11%	0%	23%
ABB Group	-8%	8%	2%	2%	3%	10%	3%	16%

Business Area	FY 2022 compared to FY 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Electrification	11%	6%	0%	17%	7%	7%	0%	14%
Motion	4%	7%	9%	20%	-3%	8%	9%	14%
Process Automation	1%	7%	3%	11%	-3%	7%	3%	7%
Robotics & Discrete Automation	7%	9%	-1%	15%	-4%	9%	-1%	4%
ABB Group	7%	6%	3%	16%	2%	7%	3%	12%

Regional comparable growth rate reconciliation

Regional comparable growth rate reconciliation for ABB Group - Quarter

Region	Q4 2022 compared to Q4 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-17%	12%	0%	-5%	0%	15%	1%	16%
The Americas	10%	1%	4%	15%	16%	1%	5%	22%
of which: United States	9%	0%	4%	13%	20%	0%	6%	26%
Asia, Middle East and Africa	-15%	10%	3%	-2%	-4%	11%	3%	10%
of which: China	-22%	9%	1%	-12%	-8%	10%	3%	5%
ABB Group	-8%	8%	2%	2%	3%	10%	3%	16%

Regional comparable growth rate reconciliation by Business Area - Quarter

Region	Q4 2022 compared to Q4 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-17%	13%	0%	-4%	-1%	16%	0%	15%
The Americas	20%	0%	0%	20%	21%	1%	0%	22%
of which: United States	25%	0%	0%	25%	25%	0%	0%	25%
Asia, Middle East and Africa	-14%	10%	0%	-4%	-2%	12%	0%	10%
of which: China	-15%	10%	0%	-5%	-12%	10%	0%	-2%
Electrification	-2%	8%	0%	6%	6%	10%	0%	16%

Region	Q4 2022 compared to Q4 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-26%	11%	0%	-15%	9%	17%	0%	26%
The Americas	-7%	2%	10%	5%	12%	1%	12%	25%
of which: United States	-9%	1%	10%	2%	16%	1%	13%	30%
Asia, Middle East and Africa	5%	11%	0%	16%	-2%	12%	0%	10%
of which: China	-8%	11%	0%	3%	-9%	10%	0%	1%
Motion	-11%	8%	3%	0%	6%	11%	3%	20%

Region	Q4 2022 compared to Q4 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-9%	12%	12%	15%	-25%	10%	11%	-4%
The Americas	11%	2%	9%	22%	2%	2%	12%	16%
of which: United States	0%	1%	7%	8%	2%	1%	13%	16%
Asia, Middle East and Africa	-21%	9%	10%	-2%	-12%	8%	13%	9%
of which: China	-42%	7%	5%	-30%	-13%	9%	17%	13%
Process Automation	-8%	8%	11%	11%	-14%	8%	11%	5%

Region	Q4 2022 compared to Q4 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-28%	10%	0%	-18%	13%	16%	0%	29%
The Americas	-13%	1%	0%	-12%	36%	-1%	0%	35%
of which: United States	-34%	0%	0%	-34%	49%	0%	0%	49%
Asia, Middle East and Africa	-33%	8%	0%	-25%	2%	11%	0%	13%
of which: China	-35%	8%	0%	-27%	7%	13%	0%	20%
Robotics & Discrete Automation	-27%	8%	0%	-19%	12%	11%	0%	23%

Regional comparable growth rate reconciliation for ABB Group – Year to date

Region	FY 2022 compared to FY 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-1%	14%	0%	13%	-2%	14%	0%	12%
The Americas	19%	1%	8%	28%	10%	1%	8%	19%
of which: United States	20%	0%	9%	29%	10%	0%	9%	19%
Asia, Middle East and Africa	3%	6%	1%	10%	-1%	6%	1%	6%
of which: China	1%	3%	1%	5%	-5%	4%	1%	0%
ABB Group	7%	6%	3%	16%	2%	7%	3%	12%

Regional comparable growth rate reconciliation by Business Area – Year to date

Region	FY 2022 compared to FY 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-1%	14%	0%	13%	-2%	15%	0%	13%
The Americas	30%	1%	0%	31%	19%	1%	0%	20%
of which: United States	36%	0%	0%	36%	19%	0%	0%	19%
Asia, Middle East and Africa	0%	6%	0%	6%	3%	7%	0%	10%
of which: China	-5%	4%	0%	-1%	-5%	4%	0%	-1%
Electrification	11%	6%	0%	17%	7%	7%	0%	14%

Region	FY 2022 compared to FY 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	4%	14%	0%	18%	1%	15%	0%	16%
The Americas	-4%	2%	25%	23%	-8%	1%	26%	19%
of which: United States	-3%	0%	29%	26%	-8%	1%	28%	21%
Asia, Middle East and Africa	12%	6%	1%	19%	0%	6%	1%	7%
of which: China	7%	4%	1%	12%	-1%	5%	0%	4%
Motion	4%	7%	9%	20%	-3%	8%	9%	14%

Region	FY 2022 compared to FY 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	-10%	12%	3%	5%	-7%	12%	3%	8%
The Americas	21%	2%	3%	26%	9%	2%	3%	14%
of which: United States	15%	0%	3%	18%	13%	1%	4%	18%
Asia, Middle East and Africa	-2%	7%	3%	8%	-7%	6%	3%	2%
of which: China	-9%	4%	2%	-3%	-10%	5%	3%	-2%
Process Automation	1%	7%	3%	11%	-3%	7%	3%	7%

Region	FY 2022 compared to FY 2021							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	3%	13%	-1%	15%	-5%	13%	-1%	7%
The Americas	15%	0%	0%	15%	19%	0%	0%	19%
of which: United States	9%	0%	0%	9%	21%	0%	0%	21%
Asia, Middle East and Africa	10%	5%	0%	15%	-9%	5%	0%	-4%
of which: China	18%	4%	0%	22%	-5%	4%	0%	-1%
Robotics & Discrete Automation	7%	9%	-1%	15%	-4%	9%	-1%	4%

Order backlog growth rate reconciliation

December 31, 2022 compared to December 31, 2021				
Business Area	US\$	Foreign	Portfolio changes	Comparable
	(as reported)	exchange impact		
Electrification	27%	6%	0%	33%
Motion	26%	8%	0%	34%
Process Automation	2%	6%	8%	16%
Robotics & Discrete Automation	40%	9%	-1%	48%
ABB Group	20%	6%	3%	29%

Other growth rate reconciliations

Q4 2022 compared to Q4 2021								
Business Area	Service orders growth rate				Services revenues growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Electrification	6%	7%	0%	13%	5%	10%	0%	15%
Motion	-2%	10%	0%	8%	5%	11%	0%	16%
Process Automation	-21%	7%	18%	4%	-23%	6%	18%	1%
Robotics & Discrete Automation	4%	10%	0%	14%	4%	10%	0%	14%
ABB Group	-11%	7%	11%	7%	-11%	8%	11%	8%

FY 2022 compared to FY 2021								
Business Area	Service orders growth rate				Services revenues growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Electrification	6%	8%	0%	14%	1%	8%	0%	9%
Motion	7%	8%	0%	15%	-2%	9%	0%	7%
Process Automation	-2%	7%	5%	10%	-7%	6%	6%	5%
Robotics & Discrete Automation	4%	9%	0%	13%	-1%	9%	0%	8%
ABB Group	1%	8%	3%	12%	-4%	7%	3%	6%

Operational EBITA as % of operational revenues (Operational EBITA margin)

Definition

Operational EBITA margin

Operational EBITA margin is Operational EBITA as a percentage of operational revenues.

Operational EBITA

Operational earnings before interest, taxes and acquisition-related amortization (Operational EBITA) represents Income from operations excluding:

- acquisition-related amortization (as defined below),
- restructuring, related and implementation costs,
- changes in the amount recorded for obligations related to divested businesses occurring after the divestment date (changes in obligations related to divested businesses),
- changes in estimates relating to opening balance sheets of acquired businesses (changes in pre-acquisition estimates),
- gains and losses from sale of businesses (including fair value adjustment on assets and liabilities held for sale),
- acquisition- and divestment-related expenses and integration costs,
- other income/expense relating to the Power Grids joint venture,
- certain other non-operational items, as well as
- foreign exchange/commodity timing differences in income from operations consisting of: (a) unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives), (b) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (c) unrealized foreign exchange movements on receivables/payables (and related assets/liabilities).

Certain other non-operational items generally includes certain regulatory, compliance and legal costs, certain asset write downs/impairments and certain other fair value changes, as well as other items which are determined by management on a case-by-case basis.

Operational EBITA is our measure of segment profit but is also used by management to evaluate the profitability of the Company as a whole.

Acquisition-related amortization

Amortization expense on intangibles arising upon acquisitions.

Restructuring, related and implementation costs

Restructuring, related and implementation costs consists of restructuring and other related expenses, as well as internal and external costs relating to the implementation of group-wide restructuring programs.

Other income/expense relating to the Power Grids joint venture

Other income/expense relating to the Power Grids joint venture consists of amounts recorded in Income from continuing operations before taxes relating to the divested Power Grids business including the income/loss under the equity method for the investment in Hitachi Energy Ltd. (Hitachi Energy), amortization of deferred brand income as well as changes in value of other obligations relating to the divestment.

Operational revenues

The Company presents operational revenues solely for the purpose of allowing the computation of Operational EBITA margin. Operational revenues are Total revenues adjusted for foreign exchange/commodity timing differences in total revenues of: (i) unrealized gains and losses on derivatives, (ii) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (iii) unrealized foreign exchange movements on receivables (and related assets). Operational revenues are not intended to be an alternative measure to Total revenues, which represent our revenues measured in accordance with U.S. GAAP.

Reconciliation

The following tables provide reconciliations of consolidated Operational EBITA to Net Income and Operational EBITA Margin by business.

Reconciliation of consolidated Operational EBITA to Net Income

(\$ in millions)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Operational EBITA	4,510	4,122	1,146	988
Acquisition-related amortization	(229)	(250)	(55)	(59)
Restructuring, related and implementation costs ⁽¹⁾	(347)	(160)	(47)	(79)
Changes in obligations related to divested businesses	88	(9)	71	7
Changes in pre-acquisition estimates	(10)	6	(10)	-
Gains and losses from sale of businesses	(7)	2,193	(3)	2,184
Acquisition- and divestment-related expenses and integration costs	(195)	(132)	(24)	(58)
Other income/expense relating to the Power Grids joint venture	(57)	(34)	10	-
Certain other non-operational items	(385)	18	28	(40)
Foreign exchange/commodity timing differences in income from operations	(31)	(36)	69	32
Income from operations	3,337	5,718	1,185	2,975
Interest and dividend income	72	51	22	14
Interest and other finance expense	(130)	(148)	(23)	(40)
Non-operational pension (cost) credit	115	166	13	36
Income from continuing operations before taxes	3,394	5,787	1,197	2,985
Income tax expense	(757)	(1,057)	(29)	(282)
Income from continuing operations, net of tax	2,637	4,730	1,168	2,703
Loss from discontinued operations, net of tax	(43)	(80)	(7)	(35)
Net income	2,594	4,650	1,161	2,668

(1) Includes impairment of certain assets.

Reconciliation of Operational EBITA margin by business

(\$ in millions, unless otherwise indicated)	Three months ended December 31, 2022					Consolidated
	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	
Total revenues	3,663	1,845	1,551	891	(126)	7,824
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(74)	(35)	(25)	(10)	(5)	(149)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	(2)	(1)	1	3	2
Unrealized foreign exchange movements on receivables (and related assets)	44	15	14	10	2	85
Operational revenues	3,634	1,823	1,539	892	(126)	7,762
Income (loss) from operations	557	316	183	101	28	1,185
Acquisition-related amortization	27	8	1	19	–	55
Restructuring, related and implementation costs	10	5	23	2	7	47
Changes in obligations related to divested businesses	1	–	–	–	(72)	(71)
Changes in pre-acquisition estimates	9	–	–	1	–	10
Gains and losses from sale of businesses	–	3	–	–	–	3
Acquisition- and divestment-related expenses and integration costs	8	3	12	2	(1)	24
Other income/expense relating to the Power Grids joint venture	–	–	–	–	(10)	(10)
Certain other non-operational items	–	–	–	(9)	(19)	(28)
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(86)	(27)	(21)	1	(6)	(139)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	2	(1)	(2)	1	–	–
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	44	11	7	7	1	70
Operational EBITA	572	318	203	125	(72)	1,146
Operational EBITA margin (%)	15.7%	17.4%	13.2%	14.0%	n.a.	14.8%

In the three months ended December 31, 2022, certain other non-operational items in the table above includes the following:

(\$ in millions, unless otherwise indicated)	Three months ended December 31, 2022					Consolidated
	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	
Certain other non-operational items:						
Regulatory, compliance and legal costs	–	–	–	–	(16)	(16)
Certain other fair values changes, including asset impairments	–	–	–	8	5	13
Business transformation costs ⁽¹⁾	5	–	–	–	33	38
Favorable resolution of an uncertain purchase price adjustment	–	–	–	(15)	–	(15)
Gains and losses from sale of investments in equity-accounted companies	–	–	–	–	(43)	(43)
Other non-operational items	(5)	–	–	(2)	2	(5)
Total	–	–	–	(9)	(19)	(28)

(1) Amounts include ABB Way process transformation costs of \$33 million for the three months ended December 31, 2022.

Three months ended December 31, 2021						
(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation	Robotics &	Corporate and	Consolidated
				Discrete Automation	Other and Intersegment elimination	
Total revenues	3,445	1,735	1,805	799	(217)	7,567
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(20)	(13)	(10)	(4)	(7)	(54)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	4	(1)	2	6
Unrealized foreign exchange movements on receivables (and related assets)	(3)	3	1	–	3	4
Operational revenues	3,423	1,725	1,800	794	(219)	7,523
Income (loss) from operations	418	2,464	193	45	(145)	2,975
Acquisition-related amortization	29	7	2	21	–	59
Restructuring, related and implementation costs	34	4	33	1	7	79
Changes in obligations related to divested businesses	–	–	–	–	(7)	(7)
Gains and losses from sale of businesses	9	(2,195)	–	–	2	(2,184)
Acquisition- and divestment-related expenses and integration costs	34	7	18	–	(1)	58
Certain other non-operational items	8	–	(2)	–	34	40
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(30)	(12)	(2)	(3)	(5)	(52)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	5	–	1	7
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	4	3	–	–	6	13
Operational EBITA	507	278	247	64	(108)	988
Operational EBITA margin (%)	14.8%	16.1%	13.7%	8.1%	n.a.	13.1%

In the three months ended December 31, 2021, certain other non-operational items in the table above includes the following:

Three months ended December 31, 2021						
(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process	Robotics &	Corporate	Consolidated
			Automation	Discrete Automation	and Other	
Certain other non-operational items:						
Regulatory, compliance and legal costs	–	–	–	–	(3)	(3)
Certain other fair values changes, including asset impairments	1	–	–	–	(2)	(1)
Business transformation costs ⁽¹⁾	10	–	–	–	23	33
Favorable resolution of an uncertain purchase price adjustment	–	–	(1)	–	–	(1)
Other non-operational items	(3)	–	(1)	–	16	12
Total	8	–	(2)	–	34	40

(1) Amounts include ABB Way process transformation costs of \$28 million for the three months ended December 31, 2021.

Year ended December 31, 2022						
				Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation			
Total revenues	14,105	6,745	6,044	3,181	(629)	29,446
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(38)	(18)	25	4	-	(27)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	14	-	10	1	30	55
Unrealized foreign exchange movements on receivables (and related assets)	10	4	(2)	1	(13)	-
Operational revenues	14,091	6,731	6,077	3,187	(612)	29,474
Income (loss) from operations	2,159	1,092	663	247	(824)	3,337
Acquisition-related amortization	116	31	4	78	-	229
Restructuring, related and implementation costs ⁽¹⁾	28	16	29	11	263	347
Changes in obligations related to divested businesses	1	-	-	-	(89)	(88)
Changes in pre-acquisition estimates	11	-	-	(1)	-	10
Gains and losses from sale of businesses	(1)	8	-	-	-	7
Acquisition- and divestment-related expenses and integration costs	40	15	134	6	-	195
Other income/expense relating to the Power Grids joint venture	-	-	-	-	57	57
Certain other non-operational items	(24)	-	-	(7)	416	385
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(32)	(5)	6	4	(5)	(32)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	13	-	9	1	25	48
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	17	6	3	1	(12)	15
Operational EBITA	2,328	1,163	848	340	(169)	4,510
Operational EBITA margin (%)	16.5%	17.3%	14.0%	10.7%	n.a.	15.3%

(1) Includes impairment of certain assets.

In the year ended December 31, 2022, certain other non-operational items in the table above includes the following:

Year ended December 31, 2022						
				Robotics & Discrete Automation	Corporate and Other	Consolidated
(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation			
Certain other non-operational items:						
Regulatory, compliance and legal costs	-	-	-	-	317	317
Certain other fair values changes, including asset impairments	(57)	-	-	8	4	(45)
Business transformation costs ⁽¹⁾	20	-	-	-	132	152
Favorable resolution of an uncertain purchase price adjustment	-	-	-	(15)	-	(15)
Gains and losses from sale of investments in equity-accounted companies	-	-	-	-	(43)	(43)
Other non-operational items	13	-	-	-	6	19
Total	(24)	-	-	(7)	416	385

(1) Amounts include ABB Way process transformation costs of \$131 million for the year ended December 31, 2022.

	Year ended December 31, 2021					
				Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation			
Total revenues	13,187	6,925	6,259	3,297	(723)	28,945
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	17	4	9	1	(4)	27
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	3	1	2	(2)	–	4
Unrealized foreign exchange movements on receivables (and related assets)	(19)	(3)	(6)	(6)	2	(32)
Operational revenues	13,188	6,927	6,264	3,290	(725)	28,944
Income (loss) from operations	1,841	3,276	713	269	(381)	5,718
Acquisition-related amortization	117	43	5	83	2	250
Restructuring, related and implementation costs	66	22	48	7	17	160
Changes in obligations related to divested businesses	–	–	–	–	9	9
Changes in pre-acquisition estimates	(6)	–	–	–	–	(6)
Gains and losses from sale of businesses	13	(2,196)	(13)	–	3	(2,193)
Acquisition- and divestment-related expenses and integration costs	70	26	35	1	–	132
Other income/expense relating to the Power Grids joint venture	–	–	–	–	34	34
Certain other non-operational items	(5)	1	1	–	(15)	(18)
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	33	14	15	(2)	(6)	54
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	4	(1)	(2)	2
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(9)	(3)	(7)	(2)	1	(20)
Operational EBITA	2,121	1,183	801	355	(338)	4,122
Operational EBITA margin (%)	16.1%	17.1%	12.8%	10.8%	n.a.	14.2%

In the year ended December 31, 2021, certain other non-operational items in the table above includes the following:

	Year ended December 31, 2021					
				Robotics & Discrete Automation	Corporate and Other	Consolidated
(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation			
Certain other non-operational items:						
Certain other fair values changes, including asset impairments	(15)	–	–	–	(104)	(119)
Business transformation costs	17	–	–	–	75	92
Favorable resolution of an uncertain purchase price adjustment	(5)	–	(1)	–	–	(6)
Other non-operational items	(2)	1	2	–	14	15
Total	(5)	1	1	–	(15)	(18)

(1) Amounts include ABB Way process transformation costs of \$80 million for the year ended December 31, 2021.

Net debt

Definition

Net debt

Net debt is defined as Total debt less Cash and marketable securities.

Total debt

Total debt is the sum of Short-term debt and current maturities of long-term debt, and Long-term debt.

Cash and marketable securities

Cash and marketable securities is the sum of Cash and equivalents, Restricted cash (current and non-current) and Marketable securities and short-term investments.

Reconciliation

(\$ in millions)	December 31,		
	2022	2021	2020
Short-term debt and current maturities of long-term debt	2,535	1,384	1,293
Long-term debt	5,143	4,177	4,828
Total debt	7,678	5,561	6,121
Cash and equivalents	4,156	4,159	3,278
Restricted cash - current	18	30	323
Marketable securities and short-term investments	725	1,170	2,108
Restricted cash - non-current	-	300	300
Cash and marketable securities	4,899	5,659	6,009
Net debt (cash)	2,779	(98)	112

Net debt/Equity ratio

Definition

Net debt/Equity ratio

Net debt/Equity ratio is defined as Net debt divided by Equity.

Equity

Equity is defined as Total stockholders' equity.

Reconciliation

(\$ in millions, unless otherwise indicated)	December 31, 2022	December 31, 2021
Total stockholders' equity	13,187	15,957
Net debt (cash) (as defined above)	2,779	(98)
Net debt (cash) / Equity ratio	0.21	-0.01

Net debt/EBITDA ratio

Definition

Net debt/EBITDA ratio

Net debt/EBITDA ratio is defined as Net debt divided by EBITDA.

EBITDA

EBITDA is defined as Income from operations for the trailing twelve months preceding the balance sheet date before depreciation and amortization for the same trailing twelve-month period.

Reconciliation

(\$ in millions, unless otherwise indicated)	December 31, 2022	December 31, 2021
Income from operations	3,337	5,718
Depreciation and Amortization	814	893
EBITDA	4,151	6,611
Net debt (cash) (as defined above)	2,779	(98)
Net debt (cash) / EBITDA	0.67	-0.01

Net working capital as a percentage of revenues

Definition

Net working capital as a percentage of revenues

Net working capital as a percentage of revenues is calculated as Net working capital divided by Adjusted revenues for the trailing twelve months.

Net working capital

Net working capital is the sum of (i) receivables, net, (ii) contract assets, (iii) inventories, net, and (iv) prepaid expenses; less (v) accounts payable, trade, (vi) contract liabilities (including non-current amounts) and (vii) other current liabilities (excluding primarily: (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits, (d) payables under the share buyback program, (e) liabilities related to certain other restructuring-related activities and (f) liabilities related to the divestment of the Power Grids business); and including the amounts related to these accounts which have been presented as either assets or liabilities held for sale but excluding any amounts included in discontinued operations.

Adjusted revenues for the trailing twelve months

Adjusted revenues for the trailing twelve months includes total revenues recorded by ABB in the twelve months preceding the relevant balance sheet date adjusted to eliminate revenues of divested businesses and the estimated impact of annualizing revenues of certain acquisitions which were completed in the same trailing twelve-month period.

Reconciliation

(\$ in millions, unless otherwise indicated)	December 31,		
	2022	2021	2020
Net working capital:			
Receivables, net	6,858	6,551	6,820
Contract assets	954	990	985
Inventories, net	6,028	4,880	4,469
Prepaid expenses	230	206	201
Accounts payable, trade	(4,904)	(4,921)	(4,571)
Contract liabilities ⁽¹⁾	(2,275)	(1,894)	(1,903)
Other current liabilities ⁽²⁾	(3,675)	(3,509)	(3,283)
Net working capital	3,216	2,303	2,718
Total revenues for the twelve months ended	29,446	28,945	26,134
Adjustment to annualize/eliminate revenues of certain acquisitions/divestments	(513)	(517)	(167)
Adjusted revenues for the trailing twelve months	28,933	28,428	25,967
Net working capital as a percentage of revenues (%)	11.1%	8.1%	10.5%

(1) Amount includes certain amounts relating to contract liabilities that are presented in other non-current liabilities.

(2) Amounts exclude \$648 million, \$858 million and \$898 million at December 31, 2022, 2021 and 2020, respectively, related primarily to (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits, (d) payables under the share buyback program and (e) liabilities related to the divestment of the Power Grids business.

Free cash flow conversion to net income

Definition

Free cash flow conversion to net income

Free cash flow conversion to net income is calculated as free cash flow divided by Adjusted net income attributable to ABB.

Adjusted net income attributable to ABB

Adjusted net income attributable to ABB is calculated as net income attributable to ABB adjusted for: (i) impairment of goodwill, (ii) losses from extinguishment of debt, and (iii) gains arising on the sale of the equity-accounted investment in Hitachi Energy Ltd., the Mechanical Power Transmission Division (Dodge) and the Power Grids business, the latter being included in discontinued operations.

Free cash flow

Free cash flow is calculated as net cash provided by operating activities adjusted for: (i) purchases of property, plant and equipment and intangible assets and (ii) proceeds from sales of property, plant and equipment.

Free cash flow conversion to net income

(\$ in millions, unless otherwise indicated)	Twelve months to	
	December 31, 2022	December 31, 2021
Net cash provided by operating activities – continuing operations	1,334	3,338
Adjusted for the effects of continuing operations:		
Purchases of property, plant and equipment and intangible assets	(762)	(820)
Proceeds from sale of property, plant and equipment	127	93
Free cash flow from continuing operations	699	2,611
Net cash used in operating activities – discontinued operations	(47)	(8)
Free cash flow	652	2,603
Adjusted net income attributable to ABB⁽¹⁾	2,442	2,416
Free cash flow conversion to net income	27%	108%

(1) Adjusted net income attributable to ABB for the year ended December 31, 2022, is adjusted to exclude the gain on the sale of Hitachi Energy Joint Venture of \$43 million and reductions to the gain on the sale of Power Grids of \$10 million. For the year ended December 31, 2021, Adjusted net income attributable to ABB is adjusted to exclude the gain on the sale of Dodge of \$2,195 million and reductions to the gain on the sale of Power Grids of \$65 million.

Net finance expenses

Definition

Net finance expenses is calculated as Interest and dividend income less Interest and other finance expense.

Reconciliation

(\$ in millions)	Year ended December 31,		Three months ended December 31,	
	2022	2021	2022	2021
Interest and dividend income	72	51	22	14
Interest and other finance expense	(130)	(148)	(23)	(40)
Net finance expenses	(58)	(97)	(1)	(26)

Book-to-bill ratio

Definition

Book-to-bill ratio is calculated as Orders received divided by Total revenues.

Reconciliation

(\$ in millions, except Book-to-bill presented as a ratio)	Year ended December 31,					
	2022			2021		
	Orders	Revenues	Book-to-bill	Orders	Revenues	Book-to-bill
Electrification	15,901	14,105	1.13	14,381	13,187	1.09
Motion	7,896	6,745	1.17	7,616	6,925	1.10
Process Automation	6,825	6,044	1.13	6,779	6,259	1.08
Robotics & Discrete Automation	4,116	3,181	1.29	3,844	3,297	1.17
Corporate and Other <i>(incl. intersegment eliminations)</i>	(750)	(629)	n.a.	(752)	(723)	n.a.
ABB Group	33,988	29,446	1.15	31,868	28,945	1.10

(\$ in millions, except Book-to-bill presented as a ratio)	Three months ended December 31,					
	2022			2021		
	Orders	Revenues	Book-to-bill	Orders	Revenues	Book-to-bill
Electrification	3,565	3,663	0.97	3,638	3,445	1.06
Motion	1,649	1,845	0.89	1,843	1,735	1.06
Process Automation	1,746	1,551	1.13	1,898	1,805	1.05
Robotics & Discrete Automation	798	891	0.90	1,100	799	1.38
Corporate and Other <i>(incl. intersegment eliminations)</i>	(138)	(126)	n.a.	(222)	(217)	n.a.
ABB Group	7,620	7,824	0.97	8,257	7,567	1.09

Return on Capital employed (ROCE)

Definition

Return on Capital employed (ROCE)

Return on Capital employed is calculated as Operational EBITA after tax, divided by the average of the period's opening and closing Capital employed, adjusted to reflect impacts from the timing of significant acquisitions/divestments occurring during the period.

Capital employed

Capital employed is calculated as the sum of Adjusted total fixed assets and Net working capital (as defined above).

Adjusted total fixed assets

Adjusted total fixed assets is the sum of (i) property, plant and equipment, net, (ii) goodwill, (iii) other intangible assets, net, (iv) investments in equity-accounted companies, and (v) operating lease right-of-use assets, less (vi) deferred tax liabilities recognized in certain acquisitions.

Notional tax on Operational EBITA

The Notional tax on Operational EBITA is computed using the adjusted group effective tax rate multiplied by Operational EBITA.

Adjusted Group effective tax rate

The Adjusted Group effective tax rate is computed by dividing an adjusted income tax expense by an adjusted pre-tax income. Certain amounts recorded in income before taxes and the related income tax expense (primarily due to gains and losses from sale of businesses and in 2022, regulatory penalties in connection with the Kusile project) are removed from the reported amounts when computing these adjusted amounts. Certain other amounts recorded in income tax expense are also excluded from the computation to determine the Adjusted Group effective tax rate.

Reconciliation

(\$ in millions, unless otherwise indicated)	December 31,		
	2022	2021	2020
Adjusted total fixed assets:			
Property, plant and equipment, net	3,911	4,045	4,174
Goodwill	10,511	10,482	10,850
Other intangible assets, net	1,406	1,561	2,078
Investments in equity-accounted companies	130	1,670	1,784
Operating lease right-of-use assets	841	895	969
Total fixed assets	16,799	18,653	19,855
Less: Deferred taxes recognized in certain acquisitions ⁽¹⁾	(358)	(417)	(597)
Adjusted total fixed assets	16,441	18,236	19,258
Net working capital - (as defined above)	3,216	2,303	2,718
Capital employed	19,657	20,539	21,976
Average Capital employed:			
Capital employed at the end of the previous year	20,539	21,976	20,141 ⁽²⁾
Capital employed at the end of the current year	19,657	20,539	21,976
	20,098	21,258	21,059
Adjusted for timing of acquisitions/divestments	948	224	–
Average Capital employed	21,046	21,482	21,059
Operational EBITA for the year ended	4,510	4,122	2,899
Notional tax on Operational EBITA	(1,037)	(929)	(731)
Operational EBITA after tax	3,473	3,193	2,168
Return on Capital employed (ROCE)	16.5%	14.9%	10.3%

(1) Amount relates to GEIS acquired in 2018, B&R acquired in 2017, Power-One acquired in 2013, Thomas & Betts acquired in 2012 and Baldor acquired in 2011.

(2) Adjusted to include \$1,196 million of operating lease right-of-use assets, recorded on adoption of the new lease accounting standard on January 1, 2019.

2023 Realignment of segments - Electrification Business Area excluding E-Mobility

Commencing in January 2023, the E-mobility Division is no longer managed within the Electrification Business Area and has become an independent Division and a separate operating segment. The Division does not currently meet any of the size thresholds to be considered a reportable segment and will be presented within Corporate and Other. The tables below present Operational EBITA and Operational EBITA margin for 2022 and 2021, restated to reflect the new structure.

(\$ in millions, unless otherwise indicated)	Year ended December 31, 2022					Consolidated
	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	
Total revenues	13,619	6,745	6,044	3,181	(143)	29,446
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(37)	(18)	25	4	(1)	(27)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	11	-	10	1	33	55
Unrealized foreign exchange movements on receivables (and related assets)	6	4	(2)	1	(9)	-
Operational revenues	13,599	6,731	6,077	3,187	(120)	29,474
Income (loss) from operations	2,140	1,092	663	247	(805)	3,337
Acquisition-related amortization	104	31	4	78	12	229
Restructuring, related and implementation costs ⁽¹⁾	28	16	29	11	263	347
Changes in obligations related to divested businesses	1	-	-	-	(89)	(88)
Changes in pre-acquisition estimates	11	-	-	(1)	-	10
Gains and losses from sale of businesses	(1)	8	-	-	-	7
Acquisition- and divestment-related expenses and integration costs	36	15	134	6	4	195
Other income/expense relating to the Power Grids joint venture	-	-	-	-	57	57
Certain other non-operational items	30	-	-	(7)	362	385
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(30)	(5)	6	4	(7)	(32)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	10	-	9	1	28	48
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	14	6	3	1	(9)	15
Operational EBITA	2,343	1,163	848	340	(184)	4,510
Operational EBITA margin (%)	17.2%	17.3%	14.0%	10.7%	n.a.	15.3%

(1) Includes impairment of certain assets.

Year ended December 31, 2021

(\$ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	12,894	6,925	6,259	3,297	(430)	28,945
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	15	4	9	1	(2)	27
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	3	1	2	(2)	-	4
Unrealized foreign exchange movements on receivables (and related assets)	(18)	(3)	(6)	(6)	1	(32)
Operational revenues	12,894	6,927	6,264	3,290	(431)	28,944
Income (loss) from operations	1,827	3,276	713	269	(367)	5,718
Acquisition-related amortization	115	43	5	83	4	250
Restructuring, related and implementation costs	66	22	48	7	17	160
Changes in obligations related to divested businesses	-	-	-	-	9	9
Changes in pre-acquisition estimates	(6)	-	-	-	-	(6)
Gains and losses from sale of businesses	13	(2,196)	(13)	-	3	(2,193)
Acquisition- and divestment-related expenses and integration costs	69	26	35	1	1	132
Other income/expense relating to the Power Grids joint venture	-	-	-	-	34	34
Certain other non-operational items	13	1	1	-	(33)	(18)
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	30	14	15	(2)	(3)	54
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	-	4	(1)	(2)	2
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(8)	(3)	(7)	(2)	-	(20)
Operational EBITA	2,120	1,183	801	355	(337)	4,122
Operational EBITA margin (%)	16.4%	17.1%	12.8%	10.8%	n.a.	14.2%

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